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The CHEMIST AND DRUGGIST



Established 1859

28 Essex Street, Strand, London, W.C.2.

Registered as a Newspaper

No. 2763
VOL. CXVIII.

JANUARY 21, 1933

Annual Subscription (with
Diary) 20/-. Single Copies 9d.

ALLUHR

A new and wonderful discovery—is the only scientific hair-remover

FOR WOMEN

ALLUHR is used by leading film stars and actresses, members of a profession who cannot afford to take chances on dangerous products. Our formula shows that our product contains only 2% of specially prepared pure Strontium Sulphide—the mildest form of Sulphides—whereas common depilatories contain up to 20% and more of crude sulphides.

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ALLUHR WILL BE EXTENSIVELY ADVERTISED IN ALL LEADING WOMEN'S PUBLICATIONS

TAKE ADVANTAGE OF OUR SPECIAL INTRODUCTION OFFER (See p. 3)

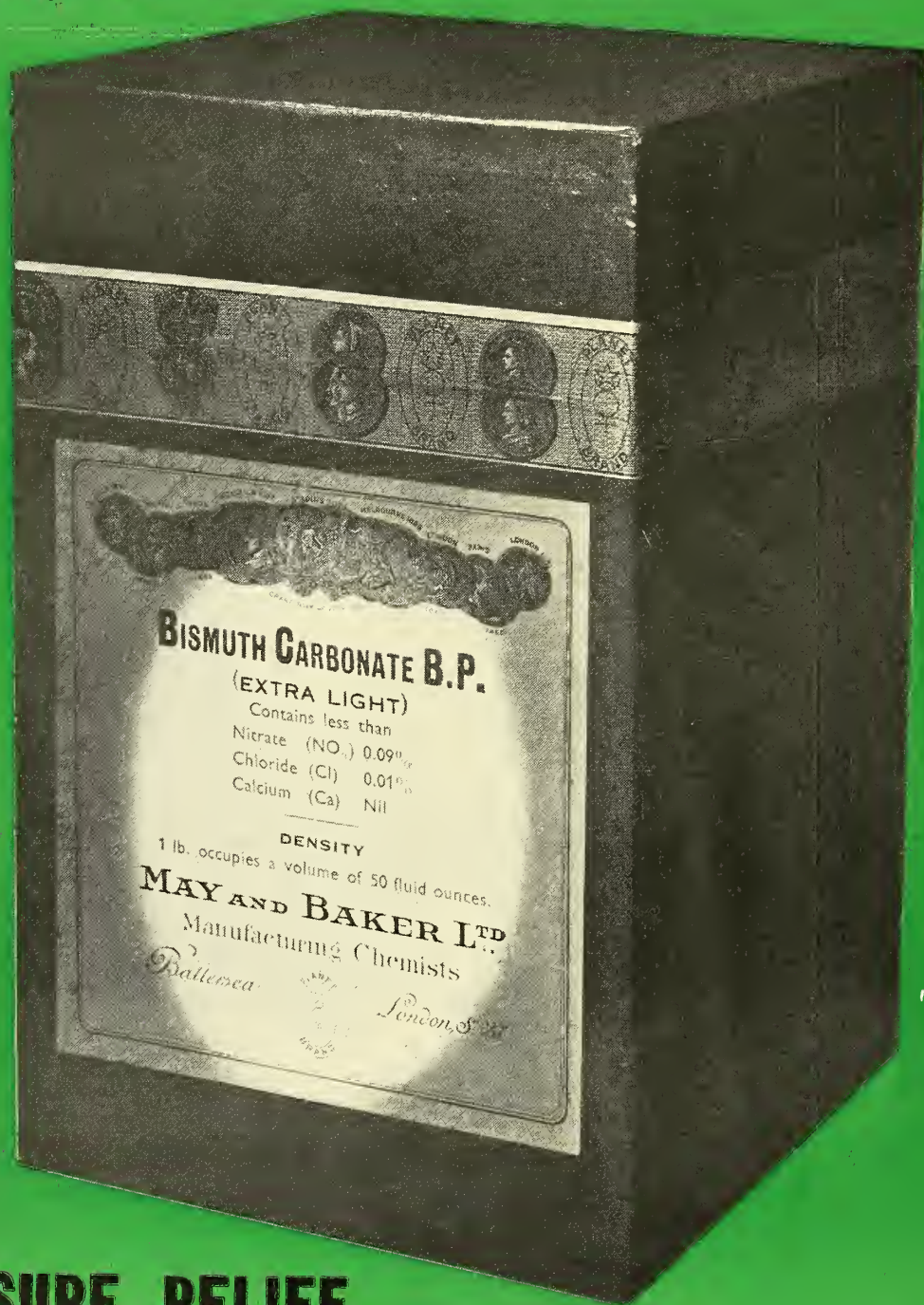
BRITANNIA LABORATORIES, 13 LITTLE TITCHFIELD STREET, LONDON, W.1

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FOR DIGESTIVE TROUBLE in GASTRIC INFLUENZA

—dispense Bismuth Mixture



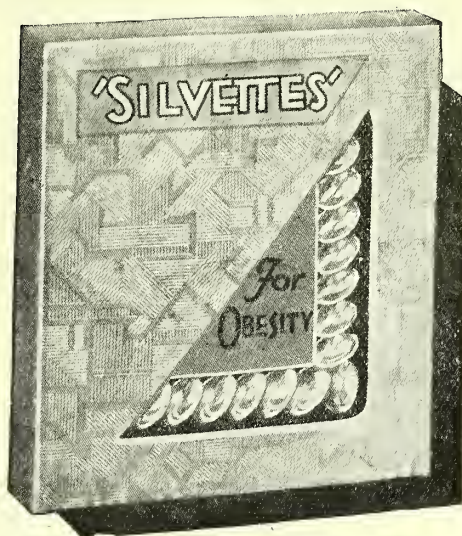
TO ENSURE RELIEF

—dispense the lightest and Purest
Bismuth Carbonate

MAY AND BAKER LTD
Manufacturing Chemists
BATTERSEA, LONDON, S.W. 11

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*The striking
and original
pack of the*



SILVETTES SERIES

(REGD. BRAND)

QUITE NEW. The method of packing the four remedies in the Silvettes series is a striking change from the usual stereotyped bottle and carton.

It consists of a box finished with patterned silver paper with a transparent aperture through which the highly burnished Tablets, and their title, can be seen. A novelty of this description is bound to attract attention, as an examination of an actual sample will convince you.

The carefully selected formulæ are of outstanding merit and will bring increasing trade through their efficiency. The prices of all Silvettes show a handsome margin of profit, and are protected.

*Post card will
bring Free
Sample by return*

SILVETTES (REGD. BRAND)

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60's 10/6 doz. Retail 2/6

Nerve Tonic
50's 10/6 doz. Retail 2/6

Liver Tonic
50's 7/6 doz. Retail 1/6

For Indigestion
50's 9/- doz. Retail 1/9

ARTHUR H. COX & CO. LTD
Manufacturing Chemists
BRIGHTON ENGLAND

Link up with the **GREAT SALES DRIVE** *for* **COTY** **CREAMS & POWDER**



Coty are concentrating the entire force of their vigorous national press advertising on these famous creations. An enormously increased demand is assured. Profit by it. Stock and show Coty Foundation Cream, Cleansing Cream and Powder. You will find them more than ever the quickest selling lines in your shop. Write to Coty for a supply of attractive display material—but, before you do, go through your supplies and ask yourself whether they are sufficient to meet the additional demand which the Sales Drive is sure to create.

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Telephone: Mayfair 7244.

Take advantage of the generous INTRODUCTION BONUS OFFER

for "ALLUHR"

ONLY 1 BONUS PARCEL FOR EACH STORE

(Bonus Offer can be Cancelled Without Notice)

**ORDER FROM YOUR WHOLESALER
BY NUMBER**

Mixed Parcel No. 1 (1 dozen, with free goods 14)

	Your cost :	Sells at :
6 small Alluhr-	4/2	6/0
2 large " -	3/5	5/0
4 small Snow -	4/10	7/0
2 small Alluhr-	Free	2/0
	12/5	20/0
Your profit on outlay	- 55%	

Mixed Parcel No. 2 (2 dozen, with free goods 29)

9 small Alluhr-	6/3	9/0
3 large " -	5/2	7/6
12 small Snow -	14/6	21/0
5 small Alluhr-	Free	5/0
	25/11	42/6
Your profit on outlay	- 65%	

Mixed Parcel No. 3 (3 dozen, with free goods 48)

15 small Alluhr-	10/4	15/0
9 large " -	15/5	22/6
12 small Snow -	14/6	21/0
9 small Alluhr	Free	9/0
3 large " -	Free	7/6
	40/3	75/0
Your profit on outlay almost	- 90%	

Straight Parcel No. 4

18 small Alluhr-	12/5	18/0
6 large " -	10/3	15/0
5 small " -	Free	5/0
	22/8	38/0
Your profit on outlay almost	- 70%	

BRITANNIA LABORATORIES

13 LITTLE TITCHFIELD STREET, W.1

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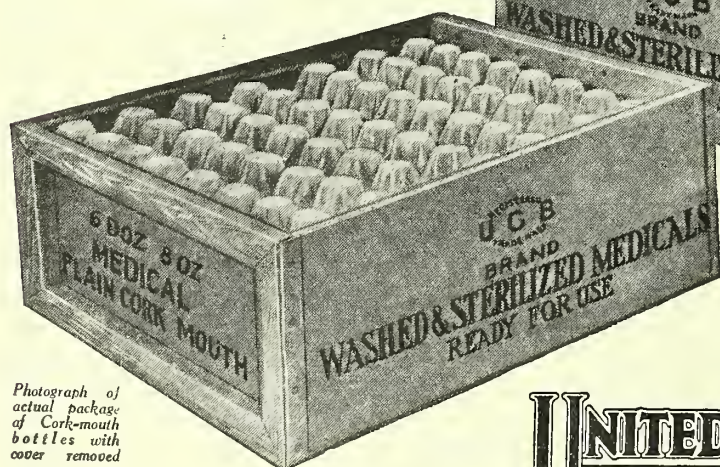
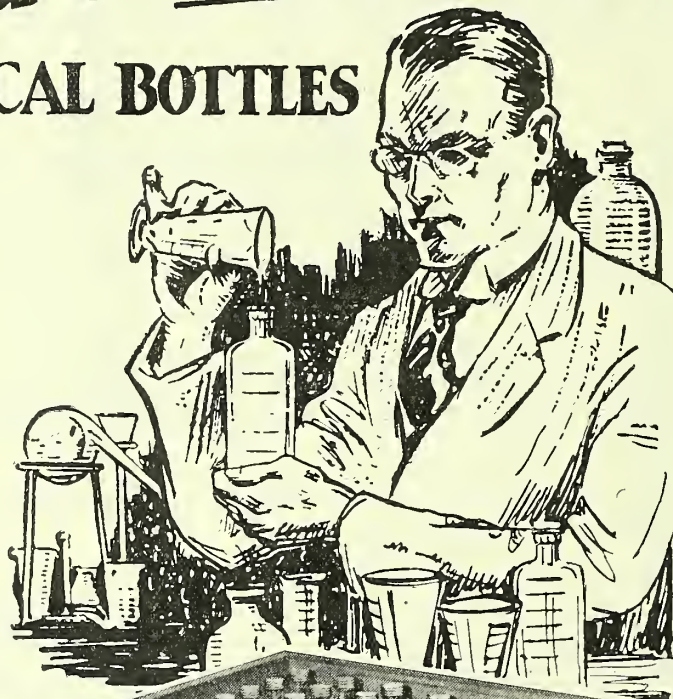
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MODERN annealing ovens deliver bottles bright and sterile. Packed without special treatment a film will gradually appear on the surface of the glass. Hence the necessity of our scientific sterilizing process passing bottles through boiling distilled water and drying in super-heated filtered air before packing in dustproof cartons. How vastly superior to many competitive makes of so-called "washed and papered" bottles which are generally only rinsed in none too clean ordinary water.

OUR SALES of this UNIQUE SERVICE STEADILY INCREASE from year to year.

ANNOUNCEMENT

In addition to the white enamelled Aluminium Screw Cap service, the full range of sizes complete with an attractive design of BLACK KORKALITE MOULDED CAP will shortly be available.



Photograph of actual package of Cork-mouth bottles with cover removed

Photograph of actual package of Screw-cap bottles with cover removed

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IN A BOX**with vulcanite
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PRICE

9/- per dozen

In gross quantities

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per dozen

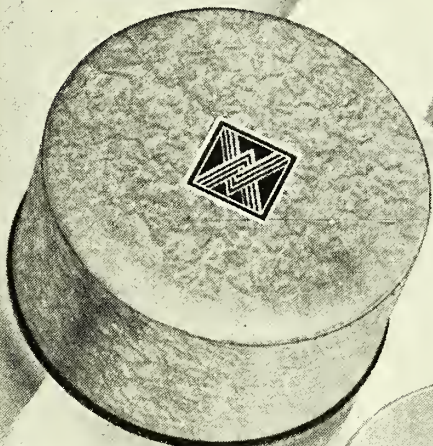
RETAIL PRICE 1/3 per tube.**MANUFACTURED BY****JOHN THOMPSON (Wholesale Druggists 1921) LTD.****MANUFACTURING CHEMISTS****27/35 DUKE STREET, LIVERPOOL**Telegraphic Address:
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Roger & Gallet

Authentic Eau de Cologne
JEAN MARIE FARINA, guaranteed genuine
Retail Prices: 4/9, 8/9, 18/6, 40/-, 80/-

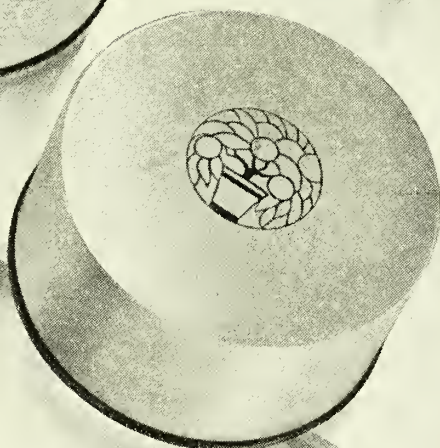
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Retail Price: 2/-



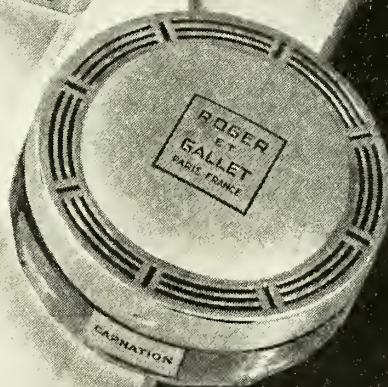
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also in the NEW
PARIS FASHION
SHADE — AURORA



Artistic cellulose powder box in the following odours:
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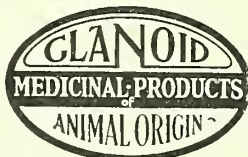


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BRILLIANTINE,
in modern pot
CARNATION,
VIOLET.

Retail Price: 1/9

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The new British Pharma-
 copoeia specifies Thyroid
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 in Combination as
 Thyroxine

We shall be glad to give fullest
 particulars to chemists on request,
 and can supply Thyroid B.P. 1932
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BRITAIN
IS COVERED BY
MOORLAND
BRAND
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BRAND
INHALANT

Now obtainable in Trial Size **6d**
Also 1/3 & 2/-
AT ALL CHEMISTS

ONLY ONE FOR SALE

Unique opportunity to buy a large
TABLET MACHINE
which will make blocks or tablets up
to 6 inches in diameter.

This machine was specially made for
a firm who for private reasons could
not take delivery.

One set of six-inch round and one set
of six-inch square punches and dies
are included.

We will sell it for £350

It is quite new, but our price for another
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We will send a photograph and full
particulars to anyone interested.

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If Surgical Dressings were merely surgical Dressings and had no effect on other branches of your business, seeing the important purpose they serve and the extent to which they influence goodwill, they would surely be sufficiently important to make it imperative for you to push Dressings of unquestionable quality and reliability. But Surgical Dressings business does not exist in a water-tight compartment. Surgical Dressings are the keystone of much of the purely pharmaceutical side of your business. They are bought mainly by people who purchase scores of other surgical and medical sundries—doctors, nurses, midwives and those

responsible for the care of the sick-room.

These people are definitely influenced by the appearance and quality of the Dressings you supply and by the name of the manufacturer. They know that the name of "Maw" on Dressings is sufficient guarantee of quality, and they know that the chemist who sells Maw's Dressings may be relied upon to supply dependable medical and surgical goods of all kinds.

Therefore, when you sell Maw's Dressings consistently, you not only increase your Dressings business, you also increase your general goodwill and your sales of all medical and surgical goods.

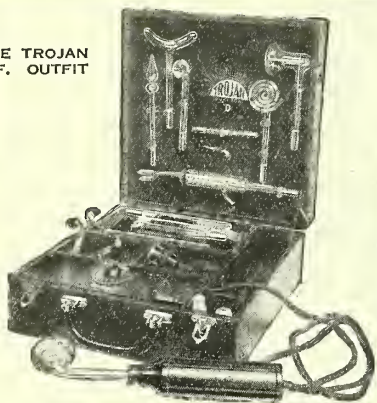
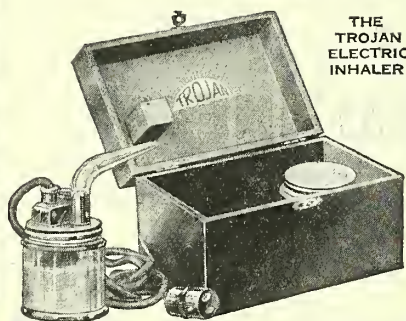
Stock, Display and Push Maw's Dressings.

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.



Telephone :
Nat. 2468
(Private Branch Exchange)

Telegrams :
Eleven, Cent, London.

THE TROJAN
H.F. OUTFITTHE
TROJAN
ELECTRIC
INHALER

Did YOU post the Coupon?

The TROJAN High Frequency Electrical Outfits relieve Rheumatism, Sciatica, Lumbago, Gout, Insomnia, Neuritis, Asthma, Bronchitis, Catarrh, etc., and can be operated by an entirely inexperienced person.

The TROJAN Electric Inhaler is unequalled for the relief and prevention of Colds, Coughs, Influenza, Catarrh, Asthma, Bronchitis, etc. Just switch on and in a few seconds a steady stream of warm, soothing, germ-destroying vapour is produced, which clears the respiratory tubes and organs as if by magic.

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Chemists in increasing numbers all over the Country are becoming more and more enthusiastic over these two TROJAN lines—they are realizing the wonderful profit-making opportunities offered.

In case YOU missed the last coupon post the one below **now**.

To JOHN SHAW & SONS WOLVERHAMPTON LTD.

(Established 1795) WOLVERHAMPTON

Please send me prices, full details and literature of the TROJAN H.F. OUTFIT and the TROJAN ELECTRIC INHALER.

Name.....

Address.....

Best sellers
The public is asking for **ZEAL** CLINICAL THERMOMETERS because they are: **GUARANTEED TO STAY ACCURATE** **CONSISTENTLY ADVERTISED**

Made by
ZEAL

—the name the public knows.

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Eau de Cologne only.

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SAMPLE
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ONE
PINT EAU
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(or any perfume)
TAKE



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COLOGNE
QUALITY
15/- Pint.

Also the following:
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LILY OF THE
VALLEY.
MIMOSA.
OPOPONAX.
SWEET PEA.
VIOLET
and others.

“SUPER CONCENTRATE” 1 OZ.
METHYLATED SPIRIT - - 19 OZS.

MIX, AND PERFUME IS THEN READY FOR USE.

By this process, fragrant refreshing Perfumes are possible, costing 1/- per pint, equal to any Continental make.

CLAYTON & JOWETT, Ltd., 46 Wood St., Liverpool

Ephregel *Regd.*

A Nasal Jelly

CONTAINING

EPHEDRINE AND ADRENALINE

FOR

HAY FEVER AND SUMMER COLDS

You can recommend with the utmost confidence Ephregel Jelly in all cases where quick and certain relief is sought for.

It is free from grease and is cleanly in use.

Ephregel lessens any tendency to complications from related complaints, such as Asthma.

Packed in collapsible tubes with nozzle in display outers.

Price 1/6 retail.
11/3 nett, wholesale.

Evans Sons Lescher & Webb Ltd.

LONDON, LIVERPOOL AND DUBLIN.

Safety Razor Blades to Private Brands

We are specialists in the production of Safety Razor Blades to Private Brands.

Home or Export.

Prices competitive.

Special wrappers, cartons and labels designed to customers' ideas.

In fact your Private Brand complete and ready for sale.

Large output available from most modern Plant.

Consult :

Dominion Steel Corp. Ltd.
"Fleet" Works, Queen's Road,
Sheffield, England

600,000 PEOPLE

Order a stock TO-DAY and make sure you do not disappoint any of YOUR Customers.

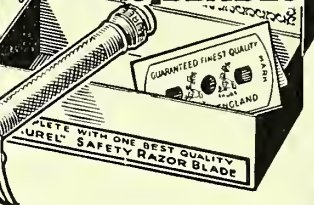
are being told about the wonderful value of LAUREL razors & blades

ARE YOU READY FOR THE DEMAND?

1¹/₂ EACH
Per packet of four **6^D**

COMPLETE OUTFIT 6^D

LAUREL⁷
SAFETY RAZORS & BLADES



Geo. H. Lawrence, Ltd., Laurel Works, Nursery St., Sheffield

Silk's

ONE DROP PERFUME

VERY handy for a lady's bag, convenient to use.

Sells at sight if shown on counter. Good profit, satisfied customers and repeat orders.
1/6 size 12/- doz.
2/6 size 18/- doz.



SILK'S TOILET Co., 8 & 9 Red Lion St., London, W.C.1

"ODENTIC" PLATE BRUSH

Regd. No. 417637.

From all Wholesalers.

Packed in 1/2-dozen Display Boxes.

Manufacturers :

W. R. Speer & Son (EST. 100 YEARS)

215 DALSTON LANE - - LONDON, E.8

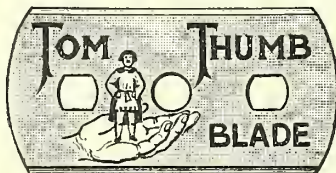


HANG IT

UP AND LET
IT SELL ITSELF

Supplied on cards or boxed. Show cards with every order.

1^D.
Each
Retail



MADE BY
GEORGE IBBERTSON & CO.
Razor Works, 146 West St., Sheffield

British Made

WE SUPPLY
DECORATED TINS
FOR PACKING
OINTMENTS
AND OTHER PRODUCTS.

SAMPLES AND PRICES UPON REQUEST.

THE CALDICOT TIN STAMPING WORKS LTD.
CALDICOT, Nr. CHEPSTOW, Mon.

The original combined Cream and Powder

VELOUTY de DIXOR



The advertised line that you are asked for.

NOW ON P.A.T.A.

Samples free upon receipt of trade card or billhead.

PRICES :—No. 1. Handbag tube	3/- doz.	Retail -/4½
No. 2. Small tube	4/- "	" -/6
No. 3. Medium tube	7/- "	" 1/-
No. 4. Large tube	14/- "	" 2/-
No. 5. Super tube	22/- "	" 3/-
Pots (glass)	21/- "	" 2/9
Pots de luxe (unbreakable)	36/- "	" 4/6

Made in four shades :

WHITE, IVORY, NATURAL and OCHRE.

Obtainable from your regular Wholesaler or direct from the Manufacturers:

DIXOR, LTD., 68, Newman St., Oxford St., London, W.1

Sole Distributors for

Northern Ireland : ROBERT MAYRS & CO., 43 Chichester Street, BELFAST
Irish Free State : MAY, ROBERTS & CO. LTD., Grand Canal Quay, DUBLIN

PEARLY

3^D PER DENT PER 3^D
PACKET PACKET

CHEWING GUM

SOLD BY CHEMISTS
— ONLY —

Distributed by

FRANCIS NEWBERRY & SONS Ltd.

CHARTERHOUSE SQUARE,
LONDON, E.C.1

EPHEDROL

REGD.



Simply insert the nozzle in the nostril, throw the head back and "sniff."

Prices :

Stamped—
3/- RETAIL, 25/- per doz.
3 dozen - 24/- per doz.
Unstamped—
3/- RETAIL, 20/- per doz.
3 dozen - 19/- per doz.
Bonus of 1 to every dozen.
Carriage paid on 3 dozen with 3 bonus.
Good Showcards

Nothing else
like it for
removing Colds
and Catarrh

Better than a Spray

Leading Laryngologists have endorsed 'Ephedrol' (in its patent nasal bottle) as better, cleaner and more effective than atomiser, spray or douche. It can be recommended to your clientele with confidence in its effectiveness.



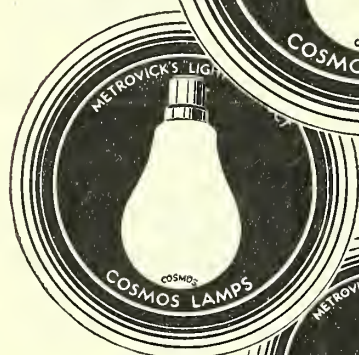
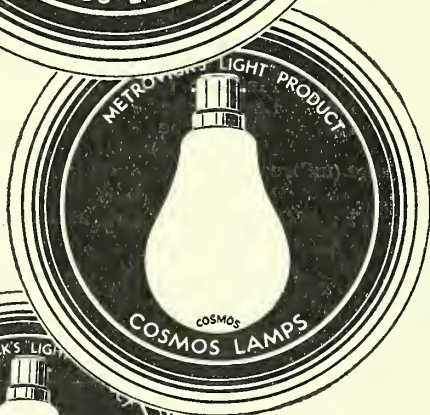
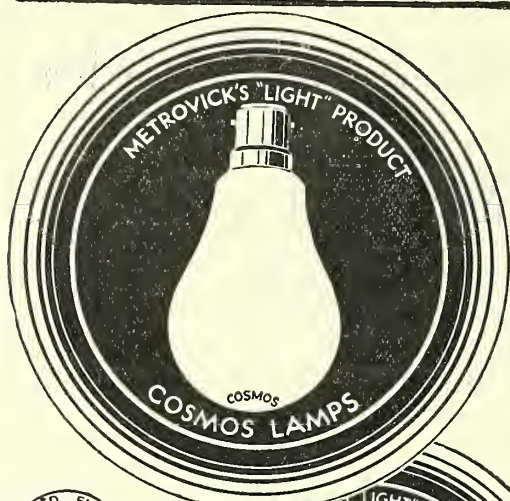
CLAY & ABRAHAM LTD.

87 BOLD STREET, LIVERPOOL

Telegrams : "ONE," LIVERPOOL. Established 1813

Obtainable from any Wholesaler

CE148



Brilliant shopwindow displays and interior illumination never fail to attract potential customers to your store.

Such light is obtainable with

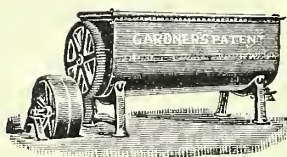
COSMOS LAMPS

METROVICK'S 'LIGHT' PRODUCT

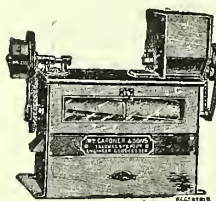
METROPOLITAN-VICKERS ELECTRICAL CO., LTD.
TRAFFORD PARK MANCHESTER

SF
234

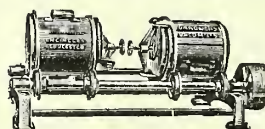
GRINDING SIFTING MIXING



Patent "Rapid" Mixer.



Patent "Rapid" Sifter.



Gardner Ball Crushing Mill.

for Chemical purposes must be rapid, super-fine, of laboratory accuracy, and absolutely consistent.

Gardner machines perform all these operations in the most efficient way.

They are economical and efficient; a high standard is maintained in the quality and quantity of their output.

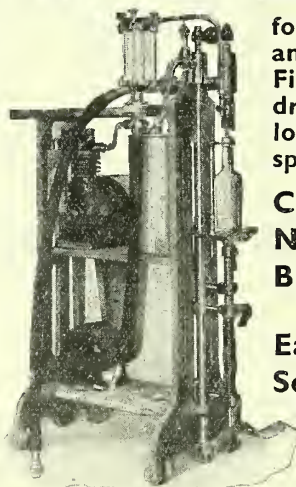
Details and Catalogue of all Gardner plants from

WM. GARDNER & SONS (Gloucester) LTD.

BRISTOL ROAD, GLOUCESTER

Telephone: 2288 (2 lines).
Telegrams: "Gardner, Gloucester."
London Office: 19 Gray's Inn Chambers.
20 High Holborn, W.C.1.
Telephone: Chancery 7347.

ROBERTS' PATENT "LEO" VACUUM FILLER



for Glass, Stone, and Tin Bottles. Fills all sizes from drachm to quart—long, short or sprinkler neck.

Clean and Rapid
No Over Filling
Broken Bottles Rejected
Easy to Clean
Self Rinsing

WRITE FOR
PARTICULARS

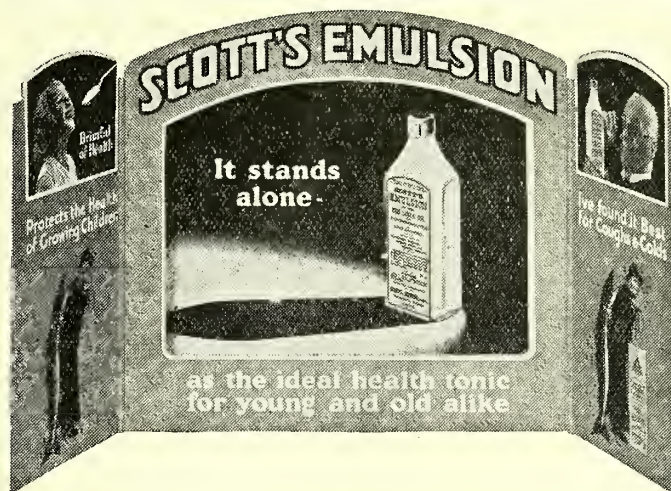
Roberts' Patent Filling Machine Co.

T. ROBERTS, Proprietor,

33 Roundcroft Street, Bolton, Lancashire
Makers of every description of Bottle Filling and Shallow Jar and Tin Filling Machine for the Chemists' use.

ALL RIGHTS RESERVED

Have you had your SCOTT'S DISPLAY yet?



Blue and white with life coloured photographs—an outstanding screen.

This season's Scott's Emulsion show material is outstandingly bold—a real sales aid in every sense. The centre piece is a three-sided screen as illustrated above. The pictures are coloured reproductions of actual photographs used in Scott's Emulsion press advertisements—a triumph of the printer's art.

In addition, there is a set of neat carton crownners,

and an ample supply of dummy cartons, sufficient for a complete shelf display.

A postcard with your label attached is sufficient—your parcel will arrive, carriage paid, by return or at any time you like to specify.

Write now and make this winter a record season for SCOTT'S—the Chemist's winter profit-maker.

Address : Display Dept., MESSRS. SCOTT & BOWNE, LTD., 10 Stonecutter St., London, E.C.4.

Send P.C. for FREE Parcel—NOW!

ARE YOU STOCKING the "EVERITE" Feeder?

The feeder that is "nearest to Nature."



Every mother of a bottle-fed baby in your district will be glad to know of the "Everite." Every "Everite" that you sell will mean another satisfied customer for you.

The "Everite" Baby Feeder ensures a regular and instantly adjustable flow of food from any feeding bottle; it is always ready for immediate use and lasts for months; it ensures correct and comfortable feeding for the baby and is now in use in leading Maternity Hospitals.

Price
2/- each
less usual discounts.

May we send you full particulars? Attractive Showcards and counter Display Cartons are available.

**The "EVERITE" Feeder Co.,
3, Cloak Lane, E.C.4.**

Telephone : City 0551/2.

A REVELATION IN INFANT FEEDING!

DOES THIS INTEREST YOU?

THE DIRECTORS OF
ROBINSON & SONS, LTD.
CHESTERFIELD

extend to you a cordial invitation to visit Stands B.44 and B.63 at the British Industries Fair, Olympia, February 20th to March 4th, 1933, where there will be exhibited a collection of over three hundred original and modern designs suitable for Cardboard Boxes of all kinds.

This display will include designs by

MEMBERS OF THE ROYAL ACADEMY
and other eminent Artists and will afford a unique opportunity for all those who are interested in the problems of applying Modern Art to the packages in which the Commodities of to-day are sold.

MANY SUCCESSES IN THE EXAMINATIONS

Your Opportunity to

QUALIFY IN OPTICS

PRACTICAL WORK. Personal tuition in the practical work is a distinctive feature. Students can avail themselves of the practical classes held during examination times when they are in London.

Expert Tuition for the **SIGHT-TESTING DIPLOMAS** of the Worshipful Company of Spectacle Makers (F.S.M.C.); the British Optical Association (F.B.O.A.); the National Association of Opticians (F.N.A.O.); or the College of Optics (F.C.O.)

Write for full particulars—

C. A. SCURR, M.P.S., F.S.M.C., F.B.O.A., F.N.A.O., B.Sc., F.I.O., F.C.O.
50 HIGH STREET, BARNET, LONDON, N.

"MUNA" Service D & P

Daily Collection and Delivery in Birmingham area.
Same Day Postal Service. ENLARGEMENTS. Colour Work. **DISCOUNT 40% & 2½**
Munns Bros. Ltd. 45/57 Summer Row **Birmingham**

CHEMISTS! Are you affected by the Trade depression? If so, start a Postal business of your own and sell your goods all over the country. Expenses low, profits high. Send for **FREE FOLDER** showing how one 70/- advt. brought £343. Certified by Chartered Accountants.
(H.) **HAND & Co., 284, High Holborn, London, W.C.1.**

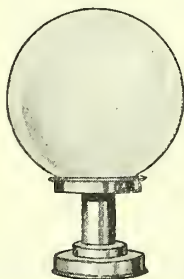
"LUMENA" ADVERTISING SIGNS

TO HELP YOUR SALES

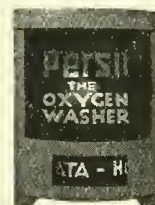
COLOUR AND MOVEMENT SAY

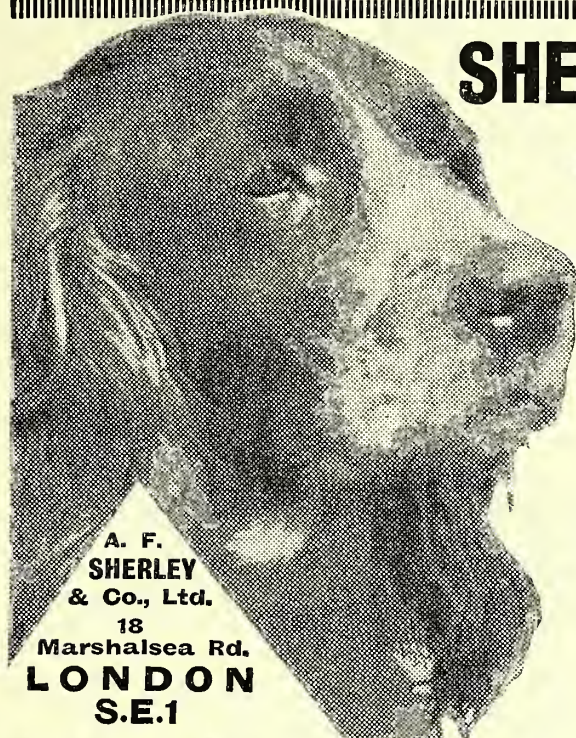
"STOP—LOOK—BUY"

"LUMENA" SIGNS ARE DESIGNED FOR SHOP WINDOWS AND SHOWROOMS SHOWING CONSTANT MOVEMENT OF BEAUTIFUL COLOURS



LUMENA LIMITED, LAMBERT PLACE, SHEFFIELD 3





SHERLEY'S MEDICINES

ARE

The Best to Make Me Well

AND

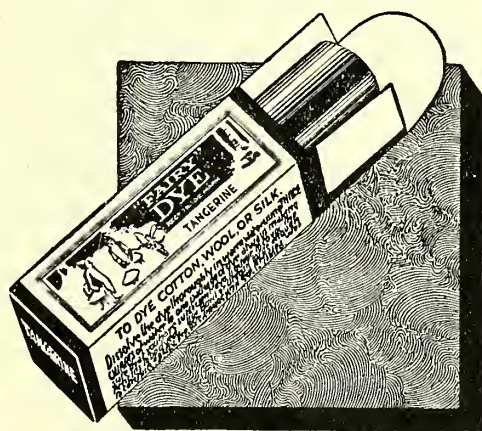
The Best for You To Sell

SHERLEY'S Dog and Cat Medicines are renowned for their Purity, Safety, and Efficacy, and each product can be thoroughly relied upon for the purpose for which it is intended.

This Reputation, in conjunction with the forceful and extensive Advertising Campaign which is always in operation, makes Sherley's the best-selling Dog and Cat Specialities. You can stock and display them with confidence, for every sale will bring satisfaction and mean further and increased business for you.

Trade Profits are generous and all Sherley lines are supplied on terms which eliminate all risk of loss. Send a Postcard to-day for Full Particulars, Special Quantity and Window Display Terms, Show Material, etc.

SHERLEY'S DOG & CAT FOODS & MEDICINES



It pays to
Concentrate
on
Advertised goods

LONDON DEPOT:
292 UPPER STREET, ISLINGTON, N.1

FAIRY DYES, LTD., GLASGOW, N.W.

Fairy Dyes

FAIRY DYES

are well advertised in the National Press and Ladies' Journals. They meet with a large and steadily increasing demand.

Sold at the popular price of 2d. per tube retail—attractively packed. 31 shades and colours.

See that your stocks are up-to-date.

PRECIPITATED CHALK

LIGHTEST—MEDIUM—DENSE.
And All Other Grades To Suit Every Purpose.
CHEMICALS FOR ALL INDUSTRIES.

Phone : Mansion House 7300. Tel. Add. : "Levermore, Phone, London."
A. LEVERMORE & CO. LTD. ABC Codes,
110 CANNON STREET, LONDON, E.C.4. 5th & 6th Editions.

"BARNETT FOR BOTTLES"

We solicit your kind enquiries for
VIALS, MEDICALS, PANELS & NOVELTIES for packing PERFUMES, etc.

JACK L. BARNETT, LTD., 18 BASINGHALL ST., LEEDS, 1

Phone : 28447 Leeds



"Yvonne"
Splendid Show material available.
Write to-day for Samples and Prices.

W.J YVONNE et CIE, Ltd., 8a, Lord Street, LIVERPOOL. (Also London & Paris)

ROUGE LIPSTICK POWDER
the LEADING 6d. LINES
and the BIGGEST SELLERS

WINNER STOCKING DYES

Make OLD, FADED or SPLASHED STOCKINGS of any material like NEW again.

Smartly packed in Waxed Tubes and Cartons. Supplied in 12 Latest Stocking Colours :—Copper Beech, Snnan, Nude, New Brown, Beige, Bulrush, Cocoa, Florence Mills, Rose Glow, Smoke Grey, Dago, Gunmetal. Price 2/- per dozen. Retail 3d. per Tube. Very attractive Display Case free with one gross. Order to-day from :—

WHITAKER & CO. (Kendal) LTD.



WINNER HOME DYES

THE FINEST OBTAINABLE for WOOL, SILK, COTTON, etc.

Smartly packed in Waxed Tubes and Cartons. Supplied in 24 Specially Concentrated Fast Colours :—Black, Navy Blue, Blue, Saxe Blue, Royal Blue, Fawn, Brown, Dark Brown, Nigger Brown, Purple, Lavender, Mauve, Green, Dark Green, Emerald, Red, Pink, Cherry, Old Rose, Grey, Cream, Yellow, Orange, Brick. Price 2/- per dozen. Retail 3d. per Tube. Very attractive Display Case free with one gross.

Dye Specialists for Chemists, KENDAL, ENG.

WESTMINSTER COLLEGE OF PHARMACY

Founder : G. S. V. WILLS, P. C. Principal : P. H. WOODNOTH, Ph.C., F.C.S. Phone : Reliance 3728.

DAY CLASSES

TERM COMMENCED JANUARY 4th.

Revision in all classes for April exam.

Prospectus for Postal or Day Classes on application to the Principal : 190, Clapham Rd., London, S.W.9.

POSTAL COURSES

PREPARATORY COURSES in all Subjects.

Special Test Papers are available for revision.

GUMS

TRAGACANTH and ARABIC

As Imported or Finely Powdered

WHITE SHELLAC

FREDK. FINK & CO., 10 & 11 Mincing Lane, London, E.C.3

Telephone : ROYAL 5094.

**WHOLESALE
PLEASE NOTE**

Attractive sole agency terms can be secured in many districts for Hobson's Black Beer (non-intoxicating), "Danzovin" Tonic Wine, etc. These lines are consistently advertised to the public. There is a good demand. Own name literature supplied.

Write us for agency terms.

JOSEPH HOBSON & SON, Ltd., Regent St., LEEDS
Phone : LEEDS 25270
Telegrams : "SPRUCE," Leeds



SHADEINE
FOR TINTING GREY HAIR

This popular article is largely advertised and stocked by all Wholesale Houses.
Trial size 8d. per doz. -- -- 6/-
1/4 size, per doz. -- -- 12/-
2/6 size, per doz. -- -- 24/-
5/6 size, per doz. -- -- 36/-

The SHADEINE Co. 58, Westbourne Grove, London, W.2

**HALEX—the best-selling
branded Dental Plate Brush**

BRITISH XYLONITE CO. LTD., HALE END, E.4

Chemists' Fittings

When you want Shop Fittings it will pay you to send to

GEORGE COOK

The Chemists' Working Shopfitter,
27 Macclesfield Street, City Road, LONDON, E.C.1
30 years' experience. Rough Sketches free.

Cachet CLOSING and FILLING machines
4/6 to 52/6
to suit all Dispensing Requirements.

WRITE FOR ILLUSTRATED LIST.

THOS. CHRISTY & CO., 4-12 Old Swan Lane, LONDON, E.C.4.

ONE OF THE BEST LINES THAT CHEMISTS HAVE EVER HANDLED

**Made entirely
of Pure Dried
Yeast.**

**No admixture
whatever.**

Yeast is well in the public favour. Benefit from the demand by stocking and displaying Sustenoid brand Yeast Tablets.

Containing no admixture, they are absolutely pure yeast—a point greatly appreciated by regular users.

A display on your counter will mean regular sales for you. A window show looks most attractive and will prove a profitable investment. Excellent show material and new style Show Cards are supplied free.

You can obtain a trial parcel for a small outlay. You will find you have never handled a better line.



Minimum Retail—

6d. per bottle of 25
1/6 " " " 100

Wholesale—

4/- and 10/6 per doz.

Parcels of 35/-

3/9 and 10/- per doz.

BIG PROFITS.

Large Parcels—

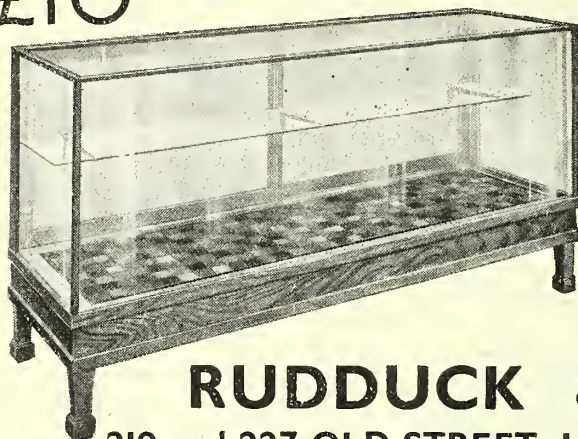
3/3 and 9/- per doz.

THOMPSON & CAPPER WHOLESALE LTD.
MANESTY BUILDINGS, COLLEGE LANE, LIVERPOOL

THE BEST VALUE TO-DAY IN GLASS COUNTERS AND SHOWCASES

The 'MARLBOROUGH' Glass Counter, well constructed in oak or mahogany, 6 ft. long by 3 ft. high by 2 ft. deep. Glazed $\frac{1}{4}$ " drawn plate-glass, polished oak parquet floor, fitted glass shelf 12" wide. Sliding doors at back.

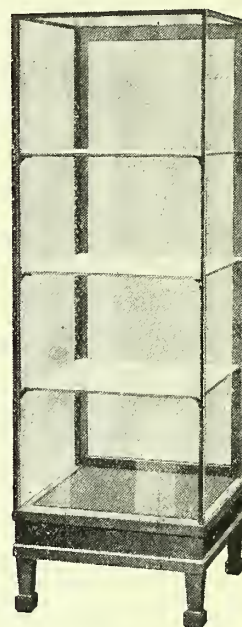
£10



The 'KINGSTON' upright showcase, 6 ft. high by 2 ft. wide by 2 ft. deep, oak or mahogany frames, oak parquet floor, glazed throughout with $\frac{1}{4}$ " drawn plate-glass and fitted 3 drawn glass shelves supported on movable brackets.

£10 : 10

Inspect these cases at our showrooms, where we have an extensive display of all types of shop fittings for the chemist.



RUDDUCK & CO.

219 and 227 OLD STREET, LONDON, E.C.1

TELEPHONE : CLERKENWELL 2371

SPRINKLER NECK BOTTLES, etc.

If your output does not justify the purchase of costly filling apparatus—use

THE "LAUDER" BOTTLE FILLING MACHINE (No.4a)

This novel and inexpensive machine has been specially devised to give excellent production, whilst its absolute simplicity ensures freedom from trouble. Strongly made in STAINLESS STEEL (fittings chromium plated) there is no internal mechanism.

Made in 2 sizes (2 and 5 gallons capacity at £8/10/0 and £12/10/0 respectively, carriage paid. F.O.B. 5% extra.

Why not write for full particulars to-day?

Sole Manufacturer :

L. T. LAUDER 4 MILES HILL STREET,
LEEDS 7

'Phone : 43039

Wires : 'Phone : 43039, Leeds

NURSE HARVEY'S MIXTURE

A safe, simple and reliable remedy for Children's Ailments is advertised so extensively in the daily and weekly Press as to bring mothers to the retailer without effort on his part.

The selling has been done before the mother reaches the chemist, and, having supplied her, it is only common sense to claim she will buy other family necessities from him. Moreover, the continuous demand for it produces a quick turnover.

For Direct Terms apply to—

OSCAR SCRUTON & CO., YORK

DON'T SIT BACK AND HOPE FOR THE BEST—

instal the Gledhill system and get it ! It provides a thorough check for every cash transaction, thus safeguarding your profit, and makes cashing up as simple as A.B.C. It is more than a till—it gives you a lifetime's trustworthy assistance and never fails.

BRITISH THROUGHOUT



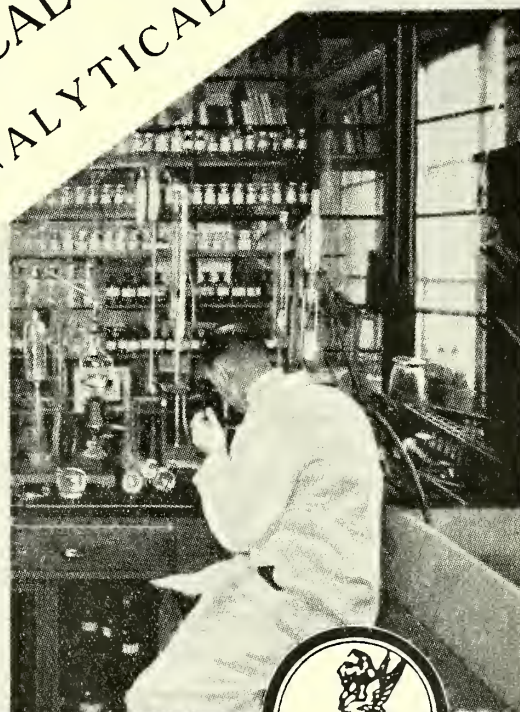
*Gledhill's
Total Adder*

GLEDHILL'S 16 TRINITY WORKS
HALIFAX ENG.



"WINGED LION BRAND"

LIQUID EXTRACTS : TINCTURES : SYRUPS
 INFUSIONS : DECOCTIONS : EMULSIONS
 AND ALL PHARMACEUTICAL PREPARATIONS
 MADE UNDER STRICT ANALYTICAL CONTROL



Phones: **Bishopsgate.** 4761.(5 LINES) **Horehound.** Grams: Phone, London.

60-64 ARTILLERY LANE, LONDON, E.1.
MANCHESTER: 24 Luna St., Gt. ANCOATS.

3 certain sellers

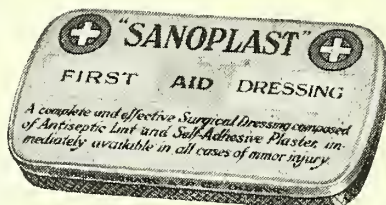
- **"MINSTER" BUTTERMILK TABLETS**
2 oz. cartons 3/8 doz. Bottles of 50 6/- doz.
Retail 7½d. and 10½d.
- **"SANOPLAST" FIRST AID DRESSING**
3/6 doz. Magnum 7/- doz.
Retail 6d. and 1/-
- **"NUCKLETS"**
Adhesive for protecting damaged knuckles
4/6 doz. Retails at 7½d.



CUXSON GERRARD & CO. LTD.
Oldbury near Birmingham

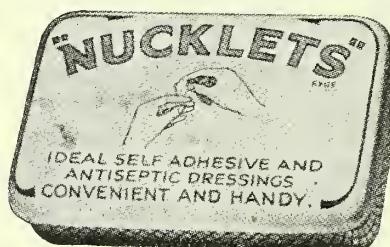
"SANOPLAST" FIRST AID DRESSING

Complete
Dressing
Composed
of
Antiseptic
Lint and
Self
Adhesive
Plaster
for Cuts,
Burns, etc.



6d. per tin of 6 Dressings

"NUCKLETS" a simple and effective dressing for the knuckles.



7½d.
box of
9.

The dressing is applied to the bent joint and remains secure when finger is straightened.

SEND FOR ILLUSTRATED PRICE LIST

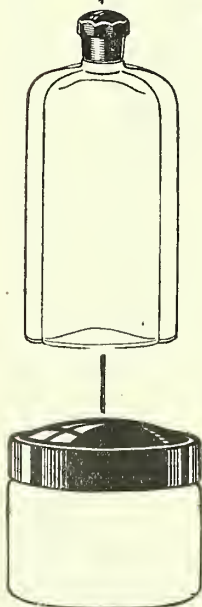
BAKELITE CAPPED BOTTLES

FOR

Bath Salts, Hair Cream,
Lotions and Perfumes

BAKELITE CAPPED JARS

FOR FACE CREAMS



Write for Illustrated Price List to:—

WILLIAM TOOGOOD, LIMITED
77 SOUTHWARK STREET, LONDON S.E.1.

*Reduced facsimile*

INTESTINAL LUBRICANTS

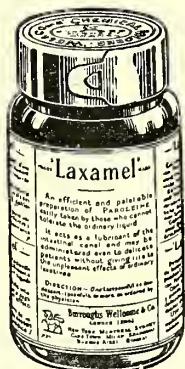
'PAROLEINE' and 'LAXAMEL' are reliable because of their consistently high quality. They are kept well before the notice of the medical profession and are regularly prescribed.

'PAROLEINE' LIQUID TRADE MARK BRAND PARAFFIN

Colourless, tasteless, odourless. Because of its purity, it can be recommended with confidence for administration to children or delicate adults. Viscosity conforms to the standard laid down in the B.P. 1932.

Prices in London to the Trade. Bottles containing 4 fl. oz., 16/- per doz.

„ „ 16 fl. oz., 48/- „ „

*Reduced facsimile*

TRADE 'LAXAMEL' MARK

A PALATABLE LUBRICANT

A pleasantly-flavoured, jelly-like confection containing 80 per cent. of 'Paroleine.'

Price in London to the Trade:

Glass jars, 21/9 per doz.



G 1713

BURROUGHS WELLCOME & CO., LONDON

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B B

WINTER PASTILLES

IN BULK OR PACKED

Glycerine, Lemon and Honey
Glycerine Thymol Compound
Glycerine and Black Currant
Menthol and Eucalyptus
Iodized Throat
Cherry Cough
Antiseptic
Influenza
Catarrh

ALL OF THE FINEST QUALITY

Free Cartons, Show Jars and Displays

Samples on request of

WARRICK BROTHERS, LTD

The Reliable House with more than a Century's Experience.

Nile Street, City Road, London, N.1.

THE CHEMIST AND DRUGGIST

A Weekly Journal of Pharmacy, the Drug, Chemical and Allied Trades

*The official organ of The Pharmaceutical Society of Ireland,
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News of the Week

Import Duties Advisory Committee

The Import Duties Advisory Committee give notice of the following applications:—For drawback under Section 9 of the Finance Act, 1932, in the case of the following:—

Paints and other commodities, in respect of the imported linseed and linseed oil used in their manufacture; and in the case of linseed oil in respect of imported linseed.

Phenacetin, in respect of para-phenetidine used in its manufacture.

Stainless steel sheets of Austenitic (18/8) quality from 3 to 26 S.W.G. in thickness, in respect of the billets or slabs of stainless steel used in their manufacture.

Stencil paper, in respect of the hand-made Tengujo paper, known as dental tissue, used in its manufacture.

Any representations which interested parties desire to make in regard to these applications should be addressed in writing to the Secretary, Import Duties Advisory Committee, Caxton House (West Block), Tothill Street, London, S.W.1, not later than February 6, 1933.

Rubber Industry Bill

The Rubber Industry Bill is now available at H.M. Stationery Office, Kingsway, London, W.C.2, price threepence. This private members' Bill provides for contributions by all rubber manufacturers to the Research Association of British Rubber Manufacturers, with the objects of ensuring the continuance and development of scientific and industrial research into the problems of the rubber industry. The Bill proposes that all rubber manufacturers in the United Kingdom and Northern Ireland shall contribute a sum not exceeding one twenty-fifth of a penny per lb. in respect of all rubber used in their processes. The operation of the Bill is limited to December 31, 1938, and the contributions are to amount to an annual average of £15,000.

Inquests

An inquiry was held at Sutton Coldfield, on January 13, concerning the death of Miss Ida Brailsford, chemist and druggist, on the previous day at a branch of Taylors Drug Co., Ltd., where she was employed. It was stated that at times Miss Brailsford complained of earache. The coroner returned a verdict of "Suicide from taking poison."

On January 13, the Westminster coroner held an inquest on the body of Miss Annie Euridge, Turneville Road, West Kensington, who died in St. George's Hospital from the effects of quinophan poisoning. It was stated that she had been crippled for some years with rheumatoid arthritis. A medical witness said he had given her various things including quinophan in small doses. The tablets greatly relieved her. This was in December, and he gave her a second course of twelve tablets, stopping the treatment just before Christmas. When he saw the patient on January 9 she was somewhat jaundiced, and complained of vomiting. He had her admitted into St. George's Hospital on January 11, and she died the next day. Dr. John Taylor, pathologist, deposed that in the hospital acute yellow atrophy of the liver was diagnosed, and that was the cause of death. Such a condition would occur in certain cases after the administration of quinophan, which was known by a variety of names. He did not think the dosage had a bearing on the result: in one case a patient had taken 60 gr., while another had taken 7,000 gr. before anything happened. Quinophan was very well thought of, and often caused improvement, sometimes when everything else had failed. Dr. Taylor went on to say that the liver in this case weighed 24 oz. instead of 40 oz. Recording a verdict of "Death by misadventure," the coroner said Miss Euridge was probably one of those persons who had a peculiar susceptibility to the effects of quinophan.

South African Exchange Dumping Duty

Notice has been issued in Johannesburg to the effect that the exchange dumping duty levied in South Africa will only continue to apply when the currency of the country of export is depreciated below South African currency, at the date of importation, by an amount exceeding 10 per cent.

Miscellaneous

ANTI-GAS SERVICES REUNION.—The annual reunion of members of the Anti-Gas Establishment, R.E., and Anti-Gas Department will take place shortly. Old members not on the roll are especially asked to write for particulars to the Secretary, Mr. H. W. Lucas, 47 Kynaston Crescent, Thornton Heath, Surrey.

IN THE COURTS.—At the Central Criminal Court, London, on January 11, George Thompson (25), labourer, was found "Guilty" of receiving various articles belonging to A. Bourjois et Cie, Ltd., Carter Lane, E.C., and was sentenced to seventeen months' hard labour.—At Hull, on January 13, Ceferina Escobido, seaman, was fined £100 on each of two charges in connection with the unlawful possession of 1 oz. of cocaine and 1 oz. of heroin.

THE ROYAL INSTITUTION.—The list of public afternoon lectures at the Royal Institution before Easter includes a course by Professor J. C. McLennan, until recently Professor of Physics in the University of Toronto, on "Low Temperatures and Low Temperature Phenomena." A course on "Recent Advances in Genetics" is to be given by Professor J. B. S. Haldane. Sir William Bragg will review the progress in the past twenty years of the science of crystal analysis by x-rays. Lord Rutherford will give a Saturday course on the "Detection and Production of Swift Particles."

Irish Notes

Irregular Practice of Dentistry

At Belfast Police Court, recently, Vincent Cairns, dental mechanic, Amelia Street, was convicted on two charges of practising dentistry without being registered under the Dentists Act. For each offence he was fined £10, with 20s. costs, and the justices ordered that one-third of the penalty should go to the complainants. Charges of holding himself out as practising or being prepared to practise dentistry were withdrawn.

At Milford, co. Donegal, on January 13, the Free State Dental Board prosecuted Philip Murray for practising dentistry or dental surgery without being registered as a dentist in the Free State, and also for representing himself as practising, or being prepared to practise, dentistry or dental surgery. After evidence for the prosecution, Mr. Regan said his client's defence was that he endeavoured to become registered in accordance with the provisions of the Act. His client was quite prepared to pay the fee and do anything that was necessary. Mr. Malseed, for the prosecution, said the point was that the defendant must show that on the establishment of the Free State Dental Board he was on the Register which previously applied to Great Britain and Ireland. It was held that the defendant could not be registered in the Free State until his name was in the British register. The justice said in the prosecution for practising dentistry a fine of £10, with £6 costs and £1 expenses, would be imposed, the defendant being given until April 1 to pay. The alternative would be two months' imprisonment. The other case would be dismissed without prejudice.

Brevities

Mr. Thomas Reilly has opened a pharmacy at Bridge Street, Banbridge.

Mr. J. J. Cole, Ph.C., is an Independent candidate for co. Cavan in the Free State General Election.

Mr. Fred Storey (president of the Chemists' and Druggists' Society of Ireland) has been appointed to the

Committee of the Stockholders' Protection Association of the Great Northern Railway.

The annual match for the McMullan cup, under the auspices of the Ulster Chemists' Golf Association, has been fixed for June 7 at the Castlerock Links.

According to a statement issued by the Minister for Industry and Commerce, new factories started in the Free State since last March include two for the manufacture of medical and veterinary preparations.

At a recent meeting of the joint committee of the Grangegorman Mental Hospital, a letter was read from the Minister for Local Government stating that sufficient reason had not been advanced for the appointment of a medical compounder at Grangegorman and also at Portrane. Mr. O'Farrell said that prescriptions were sometimes sent into the hospital by outside doctors, and were compounded by the medical officers of the institutions. It was illegal for one doctor to compound the prescriptions of another, and if the Pharmaceutical Society took this matter up it would cost the committee a good deal more than the salary of the compounder. The matter was referred to the legal adviser.

At the Cork District Court, recently, Christopher Lyons, Grattan Street, was prosecuted for having obtained sums of money by false pretences. The accused, it was stated, went round selling bath salts, telling purchasers that if they sent the wrapper to Messrs. Rexall they would receive free gifts. The accused pleaded "Guilty." Mr. Frederick Robinson (Hayes, Conyngham & Robinson, Ltd., Dublin) said they were the sole Irish agents for Rexall products, and the accused was never a representative of theirs. A sentence of two months' imprisonment was imposed, not to become effective if the accused entered into a personal bond. He was ordered to pay £5, the costs of the prosecution.

Belfast

Mr. T. L. Cole, Ph.C., has been elected a member of the Belfast Rotary Club.

Mr. Dudley P. Gurd, son of Mr. Fred P. Gurd, Ph.C., 245 Woodstock Road, Belfast, has taken his M.B. degree with second-class honours at Queen's University, Belfast.

Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc. occur.

Wednesday, January 25

Liverpool Chemists' Association, Royal Institution, Colquitt Street, at 8 p.m. Annual meeting.

Manchester Pharmaceutical Association, Junior Branch, and the *University Pharmacy Students' Association*, Medical Lecture Theatre, Manchester University, at 3 p.m. Joint meeting. Dr. R. F. Corran on "The Chemical and Physiological Standardisation of Biological Products."

Manchester Pharmaceutical Association, Junior Branch, Victoria Hotel, at 8.30 p.m. First of a series of travel lectures (illustrated by lantern slides).

Pharmaceutical Society of Great Britain, Newcastle and Northumberland Branch, Station Hotel, Newcastle. Annual dinner. Tickets, 6s. 6d., from Mr. A. E. Harris, 20 Grainger Street West, Newcastle.

Reigate, Redhill and District Pharmacists' Association and Branch of the Pharmaceutical Society, Laker's Hotel, Redhill, at 7 p.m. for 7.30 p.m. Annual dinner and dance. Tickets, 9s. single; 17s. 6d. double.

Thursday, January 26

Brighton and Hove Association of Pharmacy, Grand Hotel, Brighton. Annual dinner and dance. Reception 6.30 p.m., dinner 7 p.m. Tickets 12s. 6d. each.

Friday, January 27

The Chemical Society, Chemistry Lecture Theatre, The University, Liverpool, at 6 p.m. Professor F. G. Donnan, C.B.E., D.Sc., F.R.S., will deliver the Oswald Memorial Lecture. Admission free, without ticket.

College Notes

Leicester College of Technology

A lecture on *The Ideal Pharmacy* was given on January 13 at the Leicester College of Technology by Mr. C. Gunn, B.Pharm., Ph.C. Mr. Gunn commenced by giving an account of early pharmacy. He mentioned particularly the work of such men as William Allen and Jacob Bell. Illustrations of pharmacies of various periods were shown. The ideal pharmacy was then described. In such an establishment as complete a training as possible was given apprentices.

Cardiff Technical College

At the invitation of the Welsh Students' Association, Mr. F. J. Dyer, B.Sc. (Pharmaceutical Society's Biological Laboratories), gave a lecture at the Technical College, Cardiff, on January 13, on *Some Biological Aspects of the British Pharmacopœia, 1932*. Mr. Dyer divided his lecture into the following five sections:— (1) A brief historical survey of biological therapeutics; (2) important biological and biochemical changes in the B.P.; (3) glucosidal drugs, hormones, vitamins and their standardisation; (4) thinking in units; and (5) points concerning the commoner drugs and preparations. Mr. J. Lee Jones proposed a vote of thanks.

National Pharmaceutical Union

Branch Meetings

Bournemouth.—The annual meeting of the Bournemouth and District Branch was held on January 10. The following officers were elected for the ensuing year:— *Chairman*, Mr. A. E. Robinson; *Vice-Chairman*, Mr. F. E. Bilson. Mr. H. Lewis (Poole) and Mr. N. K. Phillips were added to the *Committee* and Mr. J. H. Sharland was re-elected *Secretary*. Mr. Bilson moved a hearty vote of thanks to Mr. N. K. Phillips for the able manner in which he had occupied the chair during 1932. The treasurer, who received warm approval upon his report, stressed the need for a larger number of local subscribers to carry out the ideals of the Branch. The delegate to the Executive Committee of Bournemouth Chamber of Trade (Mr. Victor Scampton) gave a *résumé* of the year's work. A *questionnaire* is to be sent to local chemists to ascertain how many will conform to the regular pricing of private scripts in code.

Topical Reflections

By Xrayser

Reminiscences

such as have been written by Mr. William Johnston (*C. & D.*, January 14, p. 36) are interesting from the personal and the general points of view. Everyone in pharmacy who has ever been concerned about price cutting of proprietary articles and the incidence of medicine-stamp duty must naturally feel that the retirement of this veteran supporter of the chemist's claims to exclusive privileges means the loss of something important from our scheme of things. The reminiscences appeal to us chemists as parting words of wit and wisdom from one whom we all esteem. From the general point of view they possess a valuable historic character, giving further glimpses of what happened to chemists' apprentices and assistants fifty to sixty years ago, showing how price protection of proprietaries came into being, and bringing into the limelight many individuals whose work in defence of chemists' interests might otherwise have been forgotten. Perhaps, as time goes on, he may be tempted to continue his reminiscences and the *C. & D.* find space for recording them. Meanwhile, I join with many others in wishing him a long and happy period of retirement.

Appreciation

of the *C. & D.* can be shown in no better way than by giving its contents as early attention as possible after it is delivered by post, the more especially as this helps to make us conversant with what is doing in the world of pharmacy and kindred spheres of activity without any delay. Like "G. B. D." (p. 48), I open my copy immediately on receipt, and I manage to gain a general idea of what it contains before starting my day's work. But later I return to its pages for a more deliberate perusal, with the result that I feel I am always fully informed. In such a matter as the reading of one's trade journal, it is undoubtedly advisable to form the habit of doing it without any undue delay, regarding it as a pleasurable interlude to make ourselves

acquainted with the latest information about everything connected with our business.

Accommodation

ought to be provided by national representative bodies in pharmacy, in the opinion of many of us, not only for routine work, but also for members who may have the opportunity of visiting headquarters and would like to make appointments for meeting friends or business acquaintances there. This is a point that is frequently overlooked when plans are being made for new premises, as I have been reminded while perusing your report of a committee meeting of the Ulster Retail Drug Trade Association (p. 30). And it seems particularly desirable that the point should be kept in mind when plans are being prepared for the new headquarters of the British Pharmaceutical Society. Repeatedly I have heard complaints regarding the inadequate accommodation provided by the existing premises, and it seems just as well to look ahead in preparing the plans for the proposed new edifice in Brunswick Square.

Juvenile Customers

should obviously receive as carefully studied attention as any other purchasers of our goods, and it is well that "A. S." (p. 40) should emphasise the importance of having due regard to the manner in which we deal with children when we transact business with them across the counter. Young folk should receive just as much consideration as any adult. Unfavourable impressions tend to last much longer in the case of young people, so that they may react not only upon present-day operations, but persist during many years to come and affect many more persons than are actually offended when the children's feelings are hurt. It is not enough that we should make a fuss about a child when it comes into the pharmacy with its mother, as is so often done. Much more to the point is it that the child coming alone, on however trivial an errand, should go away feeling that it has been regarded as a welcome visitor.

Legal Reports

Action Dismissed.—In the High Court, London, recently, Albert Kaye, wholesale druggists' sundriesman, King's Road, Fulham, S.W., brought an action against the Proprietary Articles Trade Association for an injunction to restrain the Association from keeping his name upon their Stop List, from causing supplies of articles protected through their agency to be withheld from him, and from removing his name from the list of firms and persons who had signed the Association's wholesale agreement; for a declaration that under the agreement in writing between him and the P.A.T.A. they were not entitled to keep his name upon the Stop List; and he also claimed damages for breach of the agreement. The matter came, on July 8, before Mr. Justice Du Parcq, who refused to grant an interim injunction, but made an order for a speedy trial. Last month, the plaintiff having taken no further step in the action, the P.A.T.A. applied to the Court for judgment. The Court made an order dismissing the action, and ordering the plaintiff to pay the P.A.T.A. the costs incurred by them in defending the action.

Incomplete Mixing.—At Wallasey, on January 11, Mr. Horace Siddall, chemist and druggist, King Street, Egremont, pleaded "Guilty" to selling borax and honey which was devoid of borax. Mr. Dodd, for the prosecution, said that a customer purchased a 1s. jar of borax and honey. Analysis disclosed the fact that the "borax and honey" consisted of honey and glycerin only. Mr. G. Standing, for the defence, said the defendant went to a jar to supply the customer and found there was only $\frac{1}{2}$ oz. there, while 3 oz. was required. He saw a mortar containing what he thought was borax and honey, and he completed the order therefrom. Shortly afterwards the assistant saw a knife on the counter, asked his employer if he had used some of the contents of the mortar, and told him that it had not been mixed. When the inspector returned with the sample, he explained what had happened. As to the cost, it might be mentioned that the borax was quite inexpensive. He (Mr. Standing) suggested that the case might be dealt with under the Probation of Offenders Act. Mr. William Johnston, Ph.C., called as to this point, said that borax was the principal medicinal ingredient of the mixture, but there would be nothing prejudicial to the purchaser by its omission; the mixture simply would not have as much beneficial effect. The chairman said that in this case there was slight carelessness without intent. The case would be dismissed on payment of the analyst's fee, 15s., and the court costs.

Van Sales of Disinfectants.—At London Sessions, on January 13, an appeal against a fine imposed by Mr. C. Mullins, the Clerkenwell Police Court magistrate, for offering goods for sale from the carriageway without a licence under the London County Council (General Powers) Act, 1927 (*C. & D.*, Nov. 5, 1932, p. 546), was heard. The applicant was Mr. Edward Mabbutt, and the respondent Mr. Arthur C. Mann, an inspector of the Finsbury Borough Council. Mr. C. Humphreys appeared on behalf of the Council, and Mr. J. F. Eastwood for the appellant. Mr. Humphreys, after relating the facts of the case, said the question was, "What was a stationary position?" Mr. Eastwood contended that the Council should have taken proceedings for obstruction, to which there would have been no defence. The Hawkers Act, 1888, included any person who travelled by any means of locomotion to sell goods or merchandise from other than his own residence. He contended that Milton vans had a perfect right to stop, and make as many sales as they could, and then move on; they could always be prosecuted for obstruction if any arose. Sir Herbert Wilberforce (Chairman): This Act was a curious form of legislation. This firm had invented a new form of trade; can they be stopped by the Act? Mr. Humphreys contended that if they stopped for five minutes they were all right; ten minutes, they were doubtful; and half an hour or more, they were stationary. Sir Herbert decided that the van was not stationary

within the meaning of the section, and allowed the appeal. He agreed to state a case for appeal to the High Court.

Alleged Passing Off.—In the Chancery Division of the High Court, London, on January 13, before Mr. Justice Luxmoore, Mr. Droop, in an action by Aspro, Ltd., Cannon Street, E.C., against Frederick Alexander Horsenail, who was stated to be trading as Lee, herbalist, at Broad Street, Canterbury, moved for an injunction to restrain the alleged passing off of goods as and for those of the plaintiffs. Counsel said that the defendant (who appeared in person) had previously given an undertaking in the terms of the notice of motion over that day. The plaintiffs' allegation was that the defendant had exhibited in his shop a notice which bore the words, "The tablets. A substitute for Aspro," and was selling tablets in bottles which described them as a substitute for Aspro and sold in competition with Aspro. His lordship said the plaintiffs could not complain of the label on the bottles. Counsel said there was a further notice that the formulas of patent medicines were everyone's property, and that in the shop were substitutes for various proprietary medicines, among which was included Aspro. His lordship pointed out that only substitutes for Aspro were being offered for sale. Mr. Droop said he had proved that there had been passing off, and he submitted there was infringement of trade mark. His lordship said there could be no infringement of trade mark by putting up a notice, "Don't buy Aspro; these are better." Mr. Droop submitted that defendant was getting the benefit of the plaintiffs' goodwill. His Lordship: I don't see how this can be getting the benefit of your goodwill. All I am concerned with is whether this is an isolated case. On the evidence I shall only grant an injunction to restrain passing off until trial or further order.

The Construction of an Agreement.—In Exeter County Court, on January 11, Mr. John B. Braid, chemist and druggist, Exmouth, claimed liquidated damages for breach of agreement and an injunction of restraint against Mr. Reginald C. Lawes, of the same place. Mr. J. L. Pratt, for the plaintiff, said that Mr. Braid had carried on business as a chemist at Exmouth for many years, and in 1925 he added a department for the sale of wireless sets and wireless accessories. The defendant was engaged as manager of the wireless branch. An agreement was drawn up between them and signed on March 2, 1925. It was of twelve months' duration, terminable after by a month's notice on either side, and a clause was to the effect that at no time thereafter should defendant carry on or be concerned in the carrying on of a wireless business in Exmouth, or within a six-mile radius of the town. In default the agreement provided for £100 liquidated damages and enabled the plaintiff to seek an injunction to restrain. Throughout the seven years in which the defendant remained in the plaintiff's employment he was in sole charge of the wireless branch. On November 12 last the defendant informed the plaintiff of his desire to leave, as he intended to set up in business at Budleigh Salterton, a town from which Mr. Braid drew many customers and which came within the prohibited area. The plaintiff told the defendant that he was restrained by the agreement, but the defendant took up the attitude that the plaintiff had better enforce the agreement if he thought he could do so. The defendant had since opened business premises at Exmouth, within 300 yards of those occupied by Mr. Braid, for the sale and service of wireless goods and wireless accessories. Evidence was given by Mr. Braid in support of this statement. Witness added that he paid the defendant £4 a week in 1929, with the promise of a bonus at the end of the year based on auditors' figures. Cross-examined by Mr. Malcolm Wright, for the defendant, Mr. Braid said that in March 1932 overhead charges were found to be rather

high, and Mr. Lawes voluntarily agreed to a reduction in his salary (which at that time was £5, without commission) to the extent of £1 a week, provided he received a bonus at the end of the year. The defendant, giving evidence, mentioned that he first set up in business on his own account as a radio engineer at Exmouth in 1924. Owing to the position of the wireless side of Mr. Braid's business last year, he worked ten or twelve hours a day and went without his holiday. In cross-examination, he agreed that on leaving Mr. Braid's employment he circularised the majority of the plaintiff's customers to the effect that he was setting up in business on his own account. The Judge: Then you turned the agreement into a scrap of paper. What is the use of entering into agreements if, when they don't suit you, you are going to tear them up? Judgment was reserved.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office

ESSEX ROAD PHARMACY, LTD. (P.C.).—Capital £100. Objects: To carry on the business of chemists, druggists, etc. R.O.: 40 Essex Road, Islington, N.1.

HILL TOP PHARMACY, LTD. (P.C.).—Capital £350. Objects: To carry on the business of chemists, druggists, opticians, etc. R.O.: 1 Pottery Road, Warley, Worcs.

L. MURPHY, LTD. (P.C.).—Capital £300. Objects: To acquire the business of a drug and photographic store carried on at 9 Main Road, Biggin Hill, Westerham, Kent.

LIFF'S PHARMACY, LTD. (P.C.).—Capital £100. Objects: To carry on the business of a drug stores and that of chemists, druggists, etc. R.O.: 31 Queen's Road, Watford, Herts.

J. C. JONES, CHEMISTS, LTD. (P.C.).—Capital £100. Objects: To carry on the business of chemists, druggists, etc. R.O.: 3 Canada Park Parade, Burnt Oak, Edgware.

F. A. WINTERSGILL & CO., LTD. (P.C.).—Capital £200. Objects: To acquire the business of a chemist and photographic dealer carried on by F. A. Wintersgill at 100 Cavendish Place, Eastbourne.

W. J. CORRY, LTD. (P.C.).—Capital £750. Objects: To carry on the business of manufacturers of and dealers in surgical belts, trusses, boots, shoes, optical and aural aids, etc. R.O.: 11a Duke Street, Manchester Square, W.1.

ENGLISH & OVERSEAS CHEMICAL COMPANY, LTD. (P.C.).—Capital £100. Objects: To carry on the business of manufacturers of and dealers in chemicals of all kinds, etc. R.O.: Morley House, 320 Regent Street, W.1.

BRITISH PHARMACEUTICAL INDUSTRIES, LTD. (P.C.).—Capital £1,000. Objects: To adopt an agreement with H. Honnor-Hunt, A. A. Stubbs and W. Bennison, and to carry on the business of chemists, druggists, dealers in pharmaceutical and other preparations, etc. R.O.: 5 Kingly Street, Regent Street, W.1.

NICOCIN, LTD. (P.C.).—Capital £5,000. Objects: To carry on the business of manufacturers of and dealers in certain confections known as "Nic-o-cin," and to adopt an agreement with G. S. Carter and to carry on the business of manufacturers of and dealers in proprietary articles, medical and toilet preparations, etc. R.O.: Brettenham House, Wellington Street, Strand, W.C.2.

WRAY'S DRUG CO., LTD.—At a meeting held in London, recently, it was resolved that this company be wound up voluntarily. Mr. C. W. S. Temple, 9-10 Pancras Lane, E.C.4, was appointed liquidator.

In their annual statistical report relating to new companies registered in England during the year ended December 31, 1932, Messrs. Jordan & Sons, Ltd., company registration agents, Chancery Lane, London, W.C.2, state seven public companies with a capital of £401,100 and 521 private companies with a capital of £6,257,989 were registered under the class of "chemicals." In 1931 the figures were: five public companies, capital £26,500 and 346 private companies, capital £1,164,345. "Chemicals" is the third largest class, being exceeded only by "Finance" and "Shipping."

Bankruptcy Reports

Re John Haydn Arkell, 304 Foleshill Road, Coventry, Warwickshire, drug store proprietor. The first meeting of creditors was held recently at the Official Receiver's Office, Coventry. A statement of affairs was submitted which showed ranking liabilities of £308 os. 8d., with assets estimated to realise £59 17s. 6d., leaving a deficiency of £248 3s. 2d. The failure was attributed to "bad trade." Debtor had no offer to make, and the case was left in the hands of the Official Receiver.

Business Changes

MR. MAURICE S. REID is opening a pharmacy at 84 St. Paul's Churchyard, London, E.C.4.

MR. J. C. SUFRIN, manufacturing perfumer, 243 Bury New Road, Manchester, has opened a retail dépôt at 150 Bury New Road.

Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1933, p. 329.

(From the "Trade Marks Journal," January 11, 1933.)

"PURGATOR"; for all goods (1). By Dr. G. Eberle & Cie., 128 Silberburgstrasse, Stuttgart, Germany. 535,050.

"MELLALOOKA"; for disinfectant soap (2), medicated soap (3), common soap (47), perfumery, etc. (48), and polishing soap (50). By Australian Soaps, Ltd., Beaconsfield Street, Alexandria, Sydney, Australia. 534,747/748/749/750/751. (Associated.)

"HARRY DICKENS" facsimile signature; for medicinal herb preparations and medicated confectionery (3). By H. Dickens, 104 Buttermarket Street, Warrington. 535,444.

"VELKURA"; for medicinal chemicals (3) and for perfumery, etc. (48). By The Erasmic Co., Ltd., Bank Quay, Warrington. 535,874/875. (Associated.)

"MASSOGENE"; for preparations for rheumatism, etc. (3). By Massogene Products, Ltd., 8 Stellman Street, London, E.5. 535,582.

"BEECHAM'S COUGH PILLS" on circular device including name and address of applicants; for pills for coughs (3). By Beecham's Pills, Ltd., Westfield Street, St. Helens, Lancs. 536,782. (Associated.)

"ELASTOCREPE"; for crepe bandages and dressings (11). By T. J. Smith & Nephew, Ltd., 5 Neptune Street, Hull. 535,920. (Associated.)

"KODOPAL"; for all goods (39). By Kodak, Ltd., Kingsway, London, W.C.2. 537,111. (Associated.)

"ERUSTICATOR RUST STAIN REMOVER" on label design of circle and strip; for preparations for removing stains from fabrics (47). By Sterling Products Co., Hellertown Road, Easton, Pennsylvania, U.S.A. 539,648.

"PREMO"; for toilet articles (48). By L. Silk, 8 and 9 Red Lion Street, London, W.C.1. 533,144.

"MID-ORO"; for a fixative powder for dental plates (48). By Johnson & Johnson (Gt. Britain), Ltd., Fairlie Road, Slough Trading Estate, Bucks. 536,497.

Pharmaceutical Society of Ireland

Council Meeting

THE January meeting of the Council was held at 67 Lower Mount Street, Dublin, on January 10, Mr. P. Brooke Kelly (president) in the chair. Other members of the Council present were Messrs. P. J. Fielding, F. J. Fitzpatrick, D. W. P. Boyd, C. Cremen, J. T. Dwyer, J. Gleeson, M. J. Kieran, J. McCormack, J. A. O'Rourke, M. J. Parkes, D. Warwick, Miss F. M. Flood, Sir Thomas Robinson, and Dr. J. A. Mitchell.

CORRESPONDENCE

His Excellency the Nuncio Apostolic wrote thanking the Council for their greetings and good wishes for the New Year, which he heartily reciprocated.

Greetings for the New Year were received from the Pharmaceutical Society of Northern Ireland, the Pharmacy Board of Queensland, the Pharmacy Board of Tasmania, the Pharmaceutical Society of Great Britain, and the Pharmaceutical Society of Western Australia.

The Ministry of Justice wrote sanctioning the suspension of the Preliminary examination for January.

Mr. J. P. Whiteside, Orchard Terrace, Grangegorman, wrote requesting to have his name restored to the Register of Registered Druggists. The Council acceded to the request.

Dr. Angela Blowick submitted the diploma of L.A.H., and requested registration as a pharmaceutical chemist. The application was granted.

CHANGES OF ADDRESS

The following changes of address were notified: Miss C. M. Murray, M.P.S.I., from "Gortuara," Claremorris, to The Square, Claremorris; Mr. John Mackle, Ph.C., from 63 Main Street, Tullow, to Ballinamore, co. Leitrim; Mr. Wm. F. Herlihy, M.P.S.I., from 439 Erin Terrace to 5 Belton Park, Donnycarney, Dublin.

PRELIMINARY REGISTRATION

The following, who submitted certificates from other bodies, were granted Preliminary registration: Misses E. Whelan and Violet Dudgeon, Messrs. P. O'Gorman, F. Reen, J. Gilligan, M. J. Long, T. L. Jordan, J. J. Cranitch, P. R. O'Toole, and J. J. Carroll.

REPORTS FROM COMMITTEES

The House Committee's report was submitted and adopted. The Law Committee's report, which was also approved, mentioned that the questions which had arisen in connection with Dr. V. Kierans as law adviser had been postponed pending a reply from Dr. Kierans to the registrar's last letter.

A RECOMMENDATION REFERRED BACK

The Schools Committee recommended that the applications received from the Technical Schools at Cork and Tralee to have their courses in pharmacy recognised be adjourned.

Mr. FITZPATRICK said the Council would not sanction the recommendation in that form. The Committee should amplify it.

Mr. FIELDING said he could not for one moment agree with the recommendation. In Cork they had one of the best schools in the country, and no money had been spared on it. He was told the pharmacy class was not second even to their own. He maintained that any school on inspection by representatives of the Council, or the registrar deputed by the Council, which came up to the standard required, and could teach the subjects they required, should not be refused recognition. It was all very well for people living in Dublin, but there were other places equally as important as Dublin. There was no reason why boys in these other places should be put to the expense of having to come and live in Dublin to do their pharmacy course. He moved: "That the report of the Schools Committee be referred back for further

consideration, and that the Committee be requested to draw up rules under which outside schools may be recognised."

Mr. FITZPATRICK seconded the motion.

Sir THOMAS ROBINSON said he did not agree that there were other places as important as Dublin. (Laughter.)

The motion was carried, and the report was referred back to the Committee.

DEATHS REPORTED

The registrar reported on the deaths of Mr. J. C. T. Day, Ph.C., and Mr. W. Moore Wade, Ph.C.

THE NEW PHARMACOPŒIA

The coming into force of the new Pharmacopœia in relation to the syllabus of the Materia Medica School was discussed, and it was agreed, on the motion of Mr. O'Rourke, seconded by Mr. J. Gleeson: "That the lecturer in materia medica be instructed to lecture on the B.P., 1932, and contrast it where necessary with the B.P., 1914."

Mr. WARWICK inquired if there would be any means of acquainting members when the new B.P. became official.

The REGISTRAR said the notice was due to appear any day in the "Gazette." On Mr. Warwick's suggestion it was decided to include a slip in this year's calendars notifying members of the date on which the new B.P. came into effect.

THE PRELIMINARY EXAMINATION

Mr. FITZPATRICK moved the following motion standing in his name, which was adjourned with another motion dealing with the Preliminary examination in the name of Mr. Parkes from last month's Council meeting: "That the words 'and no examination passed after the coming into force of these Regulations will be accepted in lieu of this examination' be deleted from the Preliminary Regulations and the following words substituted in lieu thereof: 'The Matriculation certificate of the National University of Ireland may be accepted in lieu of the Preliminary examination, provided that (a) the certificate includes the subjects of Latin and Irish, (b) the fee of four guineas is paid.'"

Mr. WARWICK seconded the motion.

Mr. O'Rourke said if they accepted an open Matriculation examination they would leave it open to about 3,000 people to come into pharmacy every year.

A vote was taken, which resulted as follows: For the motion—the president, Messrs. Fitzpatrick, Dwyer, Warwick, Fielding, Dr. Mitchell, and Miss Flood (7); against the motion—Messrs. Boyd, Cremen, Gleeson, Kieran, McCormack, O'Rourke, Parkes (7). (Sir Thomas Robinson had left the meeting before this motion was reached.)

The PRESIDENT gave his casting vote for the motion, and declared it carried by eight votes to seven.

Moving the motion standing in his name, Mr. Parkes said there was one slight mistake in it as it stood. He meant to add chemistry and botany to the subjects Irish, English, Latin and mathematics of the Matriculation examination of the National University, with the stipulation that all the subjects be taken at one examination. The business was overcrowded, and would be even more so if they had an open Matriculation examination with the ordinary subjects. His idea was to make the standard a little higher by prescribing set subjects. Any student who could not pass them all at once would not be much use to the profession.

Miss FLOOD: I think insistence on having all the subjects passed at once would be unfair to girls. Latin is not so much a subject in girls' schools as in boys'.

Mr. GLEESON seconded Mr. Parkes's motion.

Mr. O'Rourke said the case against the new Preliminary had been given in THE CHEMIST AND DRUGGIST, and the case for should be given this month. There

should be fair play with regard to what was passed for publication in the trade Press. What one member of the Council said was just as important as what another member said, particularly when different points of view were expressed. In the report of the December Council meeting published in the *C. & D.* not one word against Mr. Fitzpatrick's notice of motion was allowed to appear. It was not quite correct, as some members stated, to say the ordinary Matriculation admitted to every profession.

Mr. CREMEN said the report published in the *C. & D.* of the last meeting left country members under a wrong impression. It stated it was absolutely essential to have the president on the new Committee to deal with the Preliminary, but did not mention that he was on the Committee responsible for the Preliminary now abandoned. Personally he could not make head or tail of the report.

Mr. FITZPATRICK said there was nothing ambiguous in the remark in the report referred to.

Mr. O'ROURKE: I think the point Mr. Cremen wished brought out was the fact that the president was a member of the Committee responsible for the Preliminary, and that he was the strongest member in favour of a higher standard. From the report it would appear as if the new Preliminary was carried against his wishes.

The PRESIDENT said he must protest against these remarks. He never intended any such thing should appear. Was it suggested he "twisted" the report?

Mr. CREMEN: I am not suggesting any such thing. I am suggesting that the report of the last meeting as published did not leave the matter clear enough in the country.

Mr. PARKES: There was a discussion here on the motion for close on two hours, yet only a few lines appear in the report.

The PRESIDENT said that if the discussion for two hours was not published it affected every point of view equally.

Mr. KIERAN suggested that the members of the Council who saw differently on this question of the Preliminary should come together and devise a solution.

Replying to Mr. McCormack, the REGISTRAR said that the new Preliminary Regulations, which were already dead, were printed in the Calendar coming out this month.

Mr. FITZPATRICK said that if other members would see the equity of the matter he would meet them. He was working on behalf of chemists who had sons and daughters coming into the business. If the Council wished to make the examination stiff, but gave one or two years' notice, he would support them.

Mr. O'ROURKE said he was in favour of privileges for sons and daughters of those in the profession.

Mr. FITZPATRICK: We must have no patronage. I am opposed to it.

Miss FLOOD: It would be unfair.

Mr. KIERAN said that the only difference between Mr. Parkes and Mr. Fitzpatrick was matriculation without chemistry and botany.

Mr. CREMEN (to Mr. Fitzpatrick): Will you take chemistry and botany?

Mr. FITZPATRICK: Yes, for October 1934. You must give one school year's notice.

At this stage a letter from Mr. F. E. Smith, secretary of the Chemists' Assistants' Branch of the Irish Union of Distributive Workers, was read. The following are the principal passages:—

"My Committee, at their weekly meeting held on the 5th inst., reviewed the report as published in THE CHEMIST AND DRUGGIST of the last Council meeting, at which certain motions relative to the apprenticeship question were discussed. My Committee look with favour on any such proposals, the result of which will effectually close the gate, or at least limit considerably the number of those entering our already overstocked and underpaid profession. I was therefore instructed to draw your Council's attention to our previous official statement which appeared in certain papers, and wherein we stated that from the limited reports in our possession the total number of unemployed assistants (qualified and unqualified) reaches the enormous figure of 251 men and 187 women. . . .

"We would welcome any clearly defined proposals which would reduce that number. . . . We would, however, oppose

any attempt at raising the standard of the Preliminary examination or the non-acceptance of the N.U.I. Matriculation as equivalent to your examination, as we consider that this is unfair to the poor man's son. My Committee would welcome an exchange of views on the whole matter of the Preliminary examination with your Council with a view to arriving at some definite arrangement fair to all. . . ."

On the motion of Mr. FITZPATRICK, seconded by Mr. FIELDING, the following resolution was passed: "That the Preliminary examination of the Society be suspended for a period of three years from this date, and that all Regulations to the contrary be hereby rescinded."

After further discussion the following amendment to Mr. Fitzpatrick's motion, proposed by Mr. PARKES and seconded by Mr. GLEESON, was accepted by Mr. Fitzpatrick, and passed unanimously by the Council: "That the Matriculation examination of the National University of Ireland be accepted by the Council of the Pharmaceutical Society of Ireland in lieu of the Preliminary examination, provided that:—

- (1) A registration fee of £4 4s. shall be paid.
- (2) The certificate must show that the candidate has passed in Irish, English, Latin, mathematics.
- (3) On and after October 1, 1934, candidates must also pass in chemistry and botany."

ELECTIONS AND NOMINATIONS

The following were elected to membership of the Society: Mrs. McCarthy, Messrs. D. A. Dolan, F. J. Keelaghan, and L. F. Rickerby.

Nominations for membership were received on behalf of Messrs. J. McGrotty and Wm. F. Herlihy.

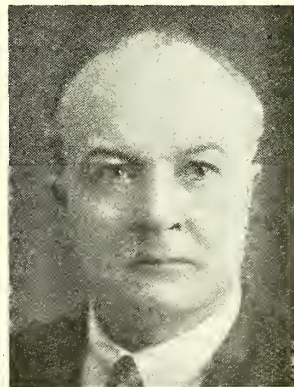
Personalities

MR. FRANK FAWCETT (governing director of Thomas Edmondson, Ltd., chemists), Penrith, has been elected vice-president of the local chamber of trade.

MR. H. E. CHAPMAN, M.P.S., having passed the examinations of the Council of Legal Education, has been published a barrister of Lincoln's Inn. An outline of Mr. Chapman's career appeared in the *C. & D.*, 1926, II, 629.

COUNCILLOR H. G. PATTISON, chemist and druggist (Hart & Co., chemists), Derby, has been elected chairman of the local Publicity Committee, among the chief objects of which is to call attention to the facilities offered by the town to manufacturers.

MR. WILLIAM L. EDWARDS, the newly elected president of the Proprietary Articles Trade Association, is a son of the late Mr. William Edwards, who was senior partner of the well-known proprietary and sundries house of William Edwards & Sons, Nile Street, London, N.1. The firm has been associated with the P.A.T.A. since the formation of that organisation, in which the late Mr. Edwards took a prominent part. Mr. W. L. Edwards joined the firm in 1911. During the war he was on active service with the Royal West Kent Regiment (The Queen's Own), retiring with the rank of captain. He is a member of the Worshipful Company of Fishmongers, and also takes an active part in the work of the British Legion, being the vice-president of his branch. For many years Mr. W. L. Edwards has represented his firm on the wholesale section of the P.A.T.A. Council, and in recent years has served as a member of the Executive Committee and as vice-president.



Mr. W. L. EDWARDS

Proprietary Articles Trade Association

Council Meeting

THE quarterly meeting of the P.A.T.A. Council was held on January 12, at the Hotel Russell, London, W.C.1, the president (Mr. J. Godber) in the chair.

THE PRESIDENT extended a welcome to the new members, Mr. Williams (Francis Newbery & Sons, Ltd.) and Mr. John Smith (Dublin).

NATIONAL UNION OF WOMEN TEACHERS

The activities of this Union in endeavouring to obtain from traders a discount on goods supplied to members of the Union had been brought to the notice of the Committee, who had made suitable representations to the National Union of Women Teachers itself and to the Presidents of the Board of Trade and the Board of Education. The Council endorsed the action of the Committee.

ALLOWANCE BY RETAILERS ON EMPTY CONTAINERS

Complaints had been received regarding the practice adopted by certain retailers of making allowances in cash to customers returning empty containers for P.A.T.A. preparations. The Council endorsed the Committee's recommendation that it should be made clear to retailers that this practice is a form of price cutting which amounts to a breach of the Association's rules.

DISCOUNT TO NURSES

A resolution from the Devon Branch of the N.P.U. regarding the abuse of the rule by which 10 per cent. discount is allowed to trained nurses on P.A.T.A. goods purchased by them for their own use was considered. It had been found that, in practice, the discount is very generally given on all goods purchased by such nurses. The Branch had urged the Council to take steps to ensure that in the case of P.A.T.A. goods the discount should be confined to articles required for the personal use of the nurses, and if it were found impossible to enforce proper observance of the rule, to consider the advisability of its rescission. The Council endorsed the Devon Branch's disapproval of the abuse referred to.

STAFF REQUIREMENTS

The Council expressed their appreciation of the policy adopted by those members of the wholesale section who have refused to supply the staff requirements of firms and corporations outside the drug trade and have advised such applicants to obtain their requirements from the pharmacist.

SCOTTISH REPRESENTATION ON THE COUNCIL

A request from the Executive Committee of the Scottish Pharmaceutical Federation that arrangements be made for the representation of Scottish retail chemists on the Council of the P.A.T.A., and that two seats on the Council be allocated to Scottish retailers, was considered. It was agreed that the Scottish Pharmaceutical Federation be reminded that there is no provision in the Constitution and Rules of the P.A.T.A. for territorial representation on any section of the Council, and that it is open for Scottish retailers to nominate in the usual way candidates for election to the Council when the annual election is held.

ELECTION OF PRESIDENT

In accordance with custom, the president for this year is nominated by the wholesale section. The election of Mr. W. L. EDWARDS as president was proposed by Mr. F. J. SMITH, who said he was sure that Mr. W. L. EDWARDS would maintain and enhance the dignity and traditions of the office. The motion was seconded by Mr. P. F. ROWSELL, supported by Mr. J. D. BOHN, and carried unanimously with acclamation.

Mr. EDWARDS took the chair and thanked the Council for the honour conferred upon him. In paying tribute to

the services rendered to the Association by the outgoing president, Mr. EDWARDS said that those who had worked with him realised the patience and tact which Mr. Godber had shown during the difficult period when the new constitution and rules of the Association were under construction. In his opinion, they owed a great debt to Mr. Godber for all he had done, and it was inadequate to say that he retired with every possible honour. The favourable report of the Government Committee on Restraint of Trade was a factor which had influenced the Council to put in hand, last year, the construction of a new set of rules. Although it would not be in the best interests of the P.A.T.A. for any considerable number of members, willingly or unwillingly, to cease membership, it must be clearly understood that constant and recurring breaches of the rules would not, in any circumstances, be tolerated or overlooked. If the Council and all connected with it went forward with a new enthusiasm for the Association, they were bound to succeed, and if, at the end of the year, the Council had—in the estimation of the "cutters"—proved itself to be the most unpopular Council that the P.A.T.A. had known, that fact, he thought, would be sufficient reward for their endeavours.

TRIBUTE TO RETIRING PRESIDENT

On the motion of Mr. WATSON, seconded by Mr. RIDOUT and supported by Mr. ARMITAGE, a hearty vote of thanks was accorded to Mr. Godber for his services to the Association during his year of office.

Mr. GODBER, in returning thanks, said that reference had been made to the long time and the great care he and all associated with the work had expended on the construction and discussions of the new rules. It had always been his view that opportunity should be provided for the ventilation of all possible grievances and objections, because it was fully realised that the new rules would constitute a permanent and not a temporary instrument. It was realised that in administering the rules it would be necessary to exercise tact and forbearance, but they must be administered firmly.

ELECTION OF VICE-PRESIDENTS AND TREASURER

The following officers were elected:—*Vice-Presidents*: Manufacturers' Section, Dr. J. J. PILLEY; Retail Section, Mr. N. N. ARMITAGE; Wholesale Section, Mr. A. T. HALL. *Treasurer*, Mr. A. T. WEBB.

In addition to the president, vice-presidents, treasurer, and chairman of the P.A.T.A. Trust Co., Ltd. (Mr. C. H. RATCLIFFE), the following were elected members of the Executive Committee:—Mr. J. GODBER, Mr. J. D. BOHN, Mr. A. RIDOUT, Mr. F. J. SMITH, Mr. S. WATSON, Mr. P. F. ROWSELL, Mr. JOHN KEALL, and Mr. A. HIGGS.

The Council considered and passed a series of resolutions instituted by the coming into force on January 1 of the new rules. They also reaffirmed the provisions of the resolutions passed by the Council at their meeting in April 1932, in connection with the restriction of wholesale distribution, the furnishing of returns by manufacturers and wholesalers of direct quantity parcels, and the limitations in respect of bonus offers.

STATEMENT AS TO P.A.T.A. CONDITIONS ON INVOICES

The following resolution was passed: "That all members of the manufacturers' section and all wholesale distributors of articles on the P.A.T.A. List be required to state legibly on the invoices for P.A.T.A. articles sold by them that the goods are supplied subject to observance by the purchaser of the conditions regarding re-sale laid down by the Association, and that acceptance by the purchaser of the goods will be deemed to be an undertaking to observe the aforementioned conditions of sale, and that the form of wording to be used be one approved by the Executive Committee."

PRICE-PROTECTION WORK

The SECRETARY, reviewing the price-maintenance work of the Association during the past quarter, said that although it would be unwise to be too optimistic there were certain definite signs that the cutting position had improved recently in London and the provinces. Many cutters had been brought into line, and, as the Council knew, a considerable number of traders who had been placed on the Stop List had consented to enter into agreements involving the payment of liquidated damages for breach, as a condition of their removal from the Stop List.

Festivities

Birkenhead Ladies' Night

THE annual ladies' night of the Birkenhead and Wirral Pharmacists' Association was held on January 12. The president (Mr. A. Williamson) and Mrs. Williamson received the guests, among whom were Mr. H. N. Linstead (secretary of the Pharmaceutical Society), Mr. H. Humphreys Jones (president of the Liverpool Chemists' Association), and Mr. G. Wilson (president of the Wallasey Pharmacists' Association). Toasts were proposed by Mr. Grant ("The Ladies"), by Mr. Williamson ("The Society"), and by Mr. Wright ("The Visitors"). The responses were made by Mrs. W. G. Snow, Mr. H. N. Linstead, and Mr. H. Humphreys Jones respectively. Regret was expressed that ill-health had prevented the president of the Society (Mr. F. Gladstone Hines) from being present.

Bath Whist Drive

A SUCCESSFUL whist drive and supper was held by the members of the Bath and District Branch of the Pharmaceutical Society on January 12, when forty-three members and their friends were received by the president (Mr. W. H. Hallett). Whist was played until 9 p.m., when an excellent supper was served. Mrs. W. H. Hallett presented the prizes as follows:—*Ladies*, (1) Mrs. Armstrong; (2) Miss Emmet; (3) Mrs. W. H. Hallett; (travelling) Mrs. Williams; (longest stay at one table) Miss J. Ozzard; (highest score in first half) Mrs. W. H. Hallett; (lowest score in first half) Mrs. T. J. Cornish; (consolation) Miss Knowles. *Gentlemen*, (1) Mr. E. Williams; (2) Mr. Olds; (3) Mr. Bawn; (travelling) Miss Ozzard; (longest stay at one table) Miss B. J. Olds; (highest score in first half) Mr. Meehan; (lowest score in first half) Mr. Bolwell; (consolation) Mr. R. J. Shutter. The president, in thanking those who had assisted in making the evening such a success, also expressed the members' appreciation of the donors of the prizes.

Staff Functions

THE annual staff dinner of James Woolley, Sons & Co., Ltd., manufacturing chemists, was held at the Grand Hotel, Manchester, on January 13, Mr. J. H. Franklin presiding. Illness and a fog prevented many from attending, but in spite of such unfavourable circumstances the function was a pronounced success. The guests numbered over 100.

THE eleventh annual social and dance of Pond's Extract Co., Perivale, was held at the Victoria Hall, Bloomsbury Square, London, W.C.1, on January 14. The guests were received by Mr. and Mrs. A. F. Gunning. Prizes were presented for dancing events and the non-dancers were not forgotten during the evening, games and competitions being arranged for their benefit. A most enjoyable evening was spent by all.

A DANCE was held at Tony's Ballroom, Birmingham, on January 10, when the directors of the County Perfumery Co. entertained the employees, staff and friends in celebration of the success of Brylcreem. The party numbered nearly 300. During an interval a gold watch and Raleigh bicycle were presented to Mr. Wilfrid Hill (managing director) by the staff and employees as a token of their esteem for him, and to mark the fortieth year of his successful business career.

Association Meetings

Cardiff.—A meeting of the Cardiff Pharmacists' Association and Cardiff and District Branch was held on January 10, Mr. R. Robinson in the chair. Mr. R. Vernon Lloyd, B.Pharm., Ph.C. (head of the Welsh College of Pharmacy), gave an interesting address on *A Survey of New B.P.* There was a good attendance of medical practitioners, pharmacists and students, including Dr. R. Picken (medical officer of health), Professor Collis (Welsh National School of Medicine), and Dr. Bowen-Jones (Ministry of Health). Mr. Lloyd dealt with the subject in an exhaustive manner. The inclusion of sterilisation, he said, was an advance. He gave interesting data with reference to ergot, digitalis and strophanthus, and emphasised the necessity of proper storage. During a discussion questions were asked by Messrs. R. Robinson, H. H. Husbands, A. S. Johnson, J. Lee Jones, and others.

Edinburgh.—The third meeting of the fifty-fifth session of the Edinburgh Chemists', Assistants and Apprentices Association was held on January 13, Mr. J. J. Blackie (president) in the chair. In a communication entitled *Odds and Ends* Mr. Henry Stout, Ph.C., dealt with the following points:—(1) A test prescription for ammonium carbonate in solution was found to be deficient. Powdered ammonium carbonate had been used in making the stock mixture, and this probably accounted for the deficiency. Tests showed that the solution was practically unchanged at the end of twelve months. The clear massive crystalline form of ammonium carbonate should be used in dispensing. (2) A chemist complained that some bismuth carbonate must be wrong because it did not effervesce with dilute mineral acids. The salt was an oxycarbonate. The absence of effervescence on adding an acid to a metallic carbonate did not necessarily prove that it was not a carbonate. (3) A specimen of glass-wool was exhibited to illustrate filtration of such liquids as sulphuric acid and solutions of caustic alkalis. (4) An inquiry for corn silk, it was explained, had no reference to the malady known as "corns." It was the trade name for the styles and stigmas of Indian corn or maize (*Zea Mays*), a fine specimen of which was exhibited. (5) A specimen of caffeine in pure white, finely interwoven needles was shown. A specimen of caffeine tri-iodide in black, iridescent, prismatic crystals containing approximately 63 per cent. of iodine was also shown. The next communication was to have been a practical demonstration on *Hydrogen Ion Concentration*, by Mr. A. Henderson, but the author was prevented from attending by illness. His place was taken by Mr. Eric Knott, Ph.C., who gave an interesting account of a recent trip to Madeira, illustrated by lantern slides. On the motion of the chairman a cordial vote of thanks was awarded to Messrs. Stout and Knott.

London (N.)—The monthly meeting of the North London Pharmaceutical Association was held on January 17, the president (Mr. J. Hearle) in the chair. After formal matters had been disposed of the remainder of the evening was given over to business discussion. The subjects dealt with included new developments in broken bulk, price protection, national advertising, and the steady fall from observance of the Shop Hours Act.

FEMININE CULTURE NINETY YEARS AGO.—"I have also by me directions compiled circa 1840 for finding the path to female perfection. . . . As to culture: 'Practise the effeminate virtues and do not meddle with horses, dogs, Euclid, politics or the dead languages'; and 'If a lady intrudes into the studies commonly appropriated to the other sex, it generally follows that either health is the sacrifice or duties and studies are neglected which are incumbent upon her own sex. At the same time I would not and do not countenance light and superficial acquirements; the female mind, so far as its capabilities go, should be exercised.' The climax comes in 'Believe me, that of all the monsters in creation a female demagogue is, next after a female infidel, the greatest outrage.'"—From a letter in "The Times."

Propaganda

By Michael J. O'Rourke, M.P.S.I.

SELF-PRESERVATION is a primary law of Nature. We should apply it to the practice of pharmacy, and by pharmacy I mean the compounding of prescriptions as distinct from the relabelling of the specialities of manufacturing chemists. Under this heading might also come the preparing of our own remedies. We should not leave all this work to the big firms. As matters stand it will be necessary for us to wake up, or become nonentities as a body of pharmaceutical chemists. Nowadays a pharmaceutical chemist is to a large extent a distributor of proprietary remedies. He is also a salesman for the products of manufacturing chemists. One reason for this unenviable position is due to want of a propaganda department to keep the medical world in close touch with us. The strong position of the patent-medicine manufacturer is due to advertising to the public in the daily Press. The manufacturing chemist interests the medical profession by paid representatives, by literature and samples.

The chain store and multiple shop help to lower the flag of professional pharmacy. They are out for Big Business pure and simple (with a capital "B" in both cases); nothing else matters. They forget that the first essential of pharmacy, the handmaiden of medicine, is service to the sick. Big Business with penny sales, etc., has given the public a wrong idea as to the real meaning of the word "chemist." There is nothing greater than force of example. We have it before us, and yet we fail to apply it to serve our own interests. We do not appreciate the power of propaganda, although we

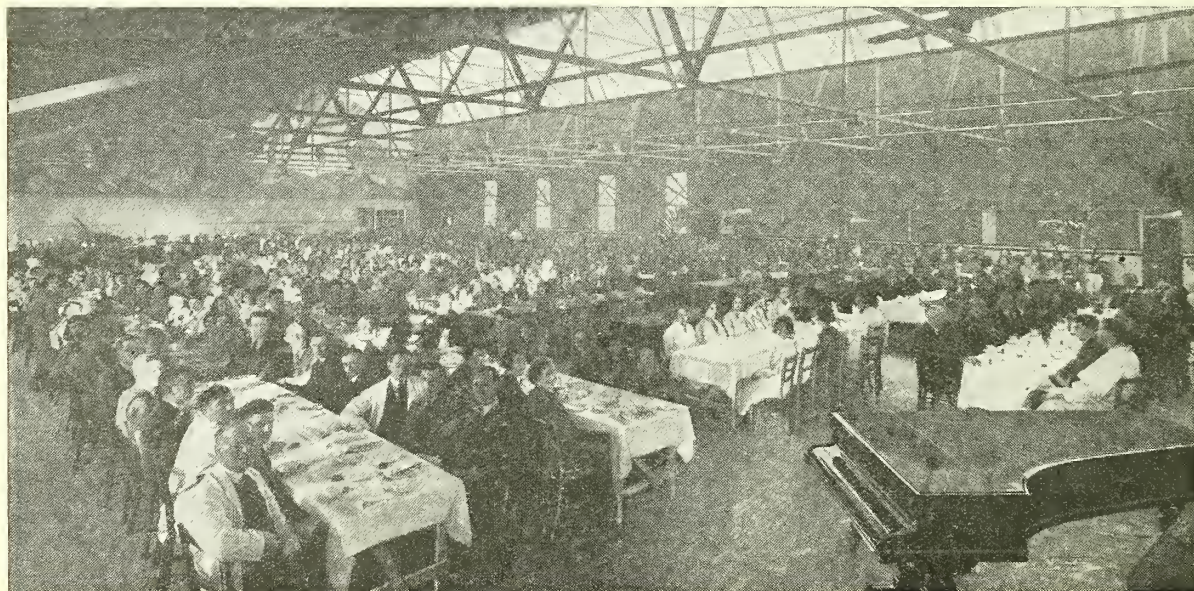
see the results of it in generous profits to others. Propaganda has made the doctor to a great extent forget our true vocation in life. If this state of affairs is allowed to go on much longer, even we ourselves may forget it, and in thirty years, perhaps less, there will be no need for pharmaceutical chemists, and no livelihood either.

We must counteract this well-organised work against ourselves before we are completely overcome. We must take a page out of our opponent's book, and fight this active propaganda by similar means. Can we not enlist the aid of the medical profession in our common interests? Can we not invite their co-operation in getting back to B.P. and B.P.C. drugs? This well-organised and well-directed propaganda is so necessary that a new body might be called into being to tackle the problem. This body could get to work and arouse interest. Once this has been done, funds can be raised. This work of propaganda is vital to our future interests. The sooner it is begun the better. Thinking over the matter will not bring us very far. Talking will be of little avail. Action is required. Propaganda work on behalf of pharmaceutical chemists has been advocated in the *C. & D.* It starts with the public. The idea is good, but putting it into practice is a much bigger proposition than stimulating our own body or the medical world. I believe it would be better to begin with ourselves and follow up with propaganda to the medical profession. We should be in a better position then to see what might be done with the public. As regards the possible results of such propaganda opinions will differ. But the time has come for this united action by chemists as a body. A practical suggestion would be for each one of us to put our views before our local doctors. When they are friendly towards us, it will prepare the way for joint action in the future.

Staff Welfare

THE interest taken by Cussons, Sons & Co., Ltd., perfumery manufacturers, in the welfare of their employees is reflected in the spacious hall which has recently been opened at the Kersal Vale Works, Manchester. This building (150 ft. by 75 ft.) has a modern kitchen, equipment, and a permanent staff capable of serving the needs of between 600 and 700 persons at each meal time. But it is much more than a dining hall—it is adequate for all the social functions of the company's 1,000 employees. It has been designed, built and decorated by their own staff and is the centre of the social life of the employees.

Theatrical and musical societies have been formed in addition to cookery, dressmaking, physical culture and dancing classes. The hall has a well equipped stage with ample dressing rooms on either side. The specially-prepared floor is ideal for dancing, and when the orchestra is not available, entertainment is provided by a radio-gramophone and piano. Opening off the main hall are many other rooms such as a smoke room and well-stocked library, a sewing room equipped with the latest machines, and a dark room, whilst a little shop at one end of the hall is open for sweets and tobacco.



"Analysed by the Public Analyst"

Notes on a lecture delivered before the Liverpool Chemists' Association, on January 11, by Mr. E. Gabriel Jones, M.Sc., F.I.C., deputy city analyst and chairman of the Liverpool section of the Society of Chemical Industry, and followed by discussion

THE appointment of public analysts was found to be necessary owing to the gross adulteration of foods and drugs which was common less than 100 years ago; and although attempts were made to suppress this evil by legislation, it was not until the Sale of Food and Drugs Act of 1875 became operative that there was much improvement. By that Act, local authorities were compelled to appoint public analysts, in some cases much against their will, sampling officers were arranged for, offences were defined and penalties fixed. The law was amended and extended by further Acts in 1879 and 1899, and there were others; all of these have been consolidated in the Food and Drugs (Adulteration) Act, 1928, while there have also been brought into force enactments dealing with artificial cream, condensed milk, dried milk, and preservatives and colouring matters in foods.

Although some local authorities showed reluctance to enforce the law at first, events proved the necessity for it, and a striking example was furnished by the outbreak of arsenical poisoning due to beer. The proper administration of the Acts has also been hampered at times by the attempts which have sometimes been made to carry out the work at a cost which made it impossible to do it efficiently. In the case of certain kinds of samples not much time is required provided they are manifestly genuine, but when an adulterated food or drug is encountered the position is very different. It must be remembered, too, that when wilful adulteration is practised, it is not of the gross character met with in days of old, but is more often of a very subtle nature, necessitating long and laborious work on the part of the analyst. Public analysts have advantages in one respect which formerly used to be lacking, in the fact that many important firms manufacturing food products and medicinal preparations now have their own scientific staffs, whose duty it is to ensure the purity of the materials used and who in many cases carry out and publish researches which are of great assistance to the chemical profession generally. For the ordinary manufacturer and trader is as anxious as the local authority, sometimes more so, to put down illegal practices and to eliminate the use of impure materials. During 1932, the number of samples taken and analysed under the Acts for Liverpool was well over 8,000, of which 295 were found to be adulterated or not up to standard, the percentage being 3.6. Over 4,000 of these were of milk, the amount of adulteration in these being 4.9 per cent.; 105 drugs and medicines were analysed, and all were genuine.

Interesting Examples

Among interesting examples of adulteration found in the past thirty years, mention should be made of ground rice and ground olive stones in white pepper, the latter being first detected in this country by Professor Campbell Brown, then public analyst for Liverpool and other places; of "spent ginger" substituted for the genuine article; of cocoa bean shell added to ground cocoa; of so-called "British Brandy" made from patent still spirit. It has sometimes been alleged that cheap wines and spirits are sold containing methylated spirits, but there seems to be little if any evidence of this.

In the case of some foodstuffs there is considerable difference of opinion as to what the composition should be, and the position is not at all satisfactory either to the consumer or the manufacturer. The High Court has held that where there is no standard the magistrates must fix one for themselves on the evidence, but this must generally entail much expense. An instance in which a standard has been so fixed and is generally adopted is in the case of sausages, the 50 per cent. of

meat required as a minimum being based upon a war-time emergency order.

Of adulterants in drugs formerly noticed, mention may be made of ground olive stones in compound liquorice powder, derived from adulterated ground liquorice root, "cream powder," composed of calcium acid phosphate and starch (substituted for cream of tartar), tartaric acid sold as citric acid. Gregory's powder has often had to be reported against on account of the presence of carbonate of magnesia replacing in part the oxide; however, the 1932 British Pharmacopœia has changed the composition. Another feature of the new B.P. which is to be welcomed is the emphasis laid on the necessity for the storage of spirit of nitrous ether in a cool place, protected from light.

Other instances of adulteration of drugs are glycerin containing glucose syrup, camphorated oil made with mineral oil, and turpentine containing petroleum spirit. Recently a penalty has been inflicted for the sale of sherry containing less than 16 per cent. of alcohol, the minimum strength according to the 1914 B.P. In those instances where a material has other uses besides being a drug, it has been held by the High Court that it is a question of fact to be decided by the magistrates in each case whether the article is a drug or not. In cases where medicinal preparations which are not in the B.P. (or B.P.C.) are sold deficient in some essential ingredient, there is usually greater doubt as to whether they can be described as infringing the law. Sometimes the statements on labels are misleading, though worded in such a way as to protect the seller; if the purchaser of a food or drug is so victimised and the law does not protect him, then the law needs to be altered. Before the 1928 Act was passed there were great hopes that some improvement would be brought about in this direction; but the outcome was merely a consolidation Act which prolonged for a further period the existing shortcomings, and when, in response to pressure from the Society of Public Analysts and others, a Departmental Committee was set up to consider what changes were necessary, it was swept away at the first mention of a "national emergency."

The growth of advertising in recent years has led to a great deal of misdescription and to extravagant claims being made which would be impossible to justify; it has been suggested that advertisements might be read as equivalent to labels on the articles, provided we had the legal power to bring this into effect and provided also that the word "wilfully" were deleted from Section 30 of the 1928 Act.

Discussion

The CHAIRMAN (Mr. H. Humphreys Jones), in opening the discussion, said it did seem as if the world was getting better when out of 8,000 samples analysed relatively few were found to be wrong. The fact that out of 105 drugs analysed not a single one was wrong spoke volumes for pharmacists.

Mr. A. JONES, in proposing a vote of thanks, remarked that if there was one thing he would like to see done away with it was the intolerable boosting of rubbishy stuff and advertising make-believe. There were things in the analytical world which struck those of them who had to do with analyses as being very incongruous.

Mr. JOHN RAE (secretary), in seconding, expressed the view that they were being a little high-brow nowadays in condemning the use of a good many harmless preservatives. It would be better, for instance, for people in the poorer districts who now ate bacon when slightly "off" to have an article of food which would be perfectly wholesome if a little preservative had been used.

The speakers in support of the vote of thanks included Messrs. Harold Wyatt, W. Dalrymple, and Philip Jones.

Trade Notes

LUMINOUS PAINT.—Brandhurst & Co., Ltd., Vintry House, Queen Street Place, London, E.C.4, supply luminous paint under the trade mark Raluco.

ADVERTISING SIGNS suitable for shop windows and showrooms are advertised in this issue by Lumena, Ltd., Lambert Place, Sheffield, 3.

CONFECTIONERY JARS.—Jack L. Barnett, Ltd., 18 Basinghall Street, Leeds, has introduced a new design of counter sales jar which is of special interest to chemists' confectioners and other manufacturers connected with the drug trade. As will be seen from the illustration of the jar there is no necessity to remove it from the counter when serving, the contents are easily accessible, and the angle of display is 45° , thus ensuring the goods being shown to best advantage.



MR. EDWARD ROGERS, who has joined the staff of William Toogood, Ltd., druggists' sundriesmen, Southwark Street, London, S.E., will represent them in the Midlands.

ALLUHR.—Britannia Laboratories, 13 Little Titchfield Street, London, W.1, are making bonus offers in connection with Alluhr and Snow. Particulars of the various parcels available are given on another page. There is some striking show material obtainable on application.

NOVALGIN.—Bayer Products, Ltd., 19 St. Dunstan's Hill, London, E.C.3, have discontinued the $7\frac{1}{2}$ gr. Novalgin in favour of the new and more popular size of 5 gr. This antirheumatic is finding increasing favour with the medical profession, and a greater demand is anticipated during the coming months.

BRANDED RAZOR BLADES.—Dominion Steel Corporation, Ltd., Fleet Works, Queen's Road, Sheffield, supply safety razor blades marked with own brand names and wrapped to suit customers' requirements.

FAMEL SYRUP.—A new and smaller size (in addition to the 3s. one) of Famel syrup has been placed on the market by Wilcox, Jozeau & Co., Ltd., 15 Great St. Andrew Street, London, W.C.2.

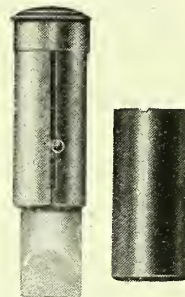
MACLEANS, LTD., Great West Road, Brentford, have brought out a new line in the form of Antiseptic Healing ointment. It is packed in tins and could be retailed at a good margin of profit. The formula includes boric acid, zinc oxide, carbolic acid, menthol and methyl salicylate.

EVANS SONS LESCHER & WEBB, LTD., 56 Hanover Street, Liverpool, have introduced two new products, namely, Oxytin brand tablets and Slimming tablets. The former contain, as the title suggests, tin oxide, an approved remedy for boils, pimples and similar affections. Both preparations are packed in cartoned screw-cap bottles which contain 50 tablets.

GEDEON RICHTER (GREAT BRITAIN), LTD., Victoria House, Southampton Row, London, W.C.1, have drawn our attention to Acitophosan and Kalmopyrin, which have now appeared on the market, and are being manufactured by the company at Gillingham, Kent. Acitophosan is a combination of calcium phenylcinchonate and calcium acetylsalicylate, and has been used on the Continent during the last influenza epidemic with great success. Kalmopyrin is a stable calcium aspirin, soluble

in water, and which, on account of its neutral character, does not cause any stomach disturbance. Both products are available in tablets (20's and 100's) and powder (1 oz.).

HARRIET HUBBARD AYER, LTD., 130 Regent Street, London, W.1, announce an addition to their already famous toilet preparations in the form of a new lipstick, sold as Ayertitan. This lipstick is of a definite orange tone, and a point which modern women will appreciate is that it keeps its orange tone on the lips.



SPIRONINE.—The British Drug Houses, Ltd., Graham Street, London, N.1, have introduced a new product under the name of Spironine. This preparation, which is a stable elixir containing 3 gr. of di-iodo-caffeine hydriodide with the soluble constituents of $7\frac{1}{2}$ gr. of coffee, is employed in the treatment of asthma and as a cardiac stimulant. It is packed in bottles of $2\frac{1}{2}$ oz. and 5 oz., and is also available in bulk (16 oz. and 80 oz.) for dispensing purposes.

"BRITISH JOURNAL PHOTOGRAPHIC ALMANAC."—We have received from Henry Greenwood & Co., Ltd., 24 Wellington Street, London, W.C.2, a copy of the 1933 edition of the "British Journal Photographic Almanac." The articles in this issue deal with "Infra-red Photography"—the story of the latest achievements in photography by which pictures may be taken at long distances, through mist or fog or in darkness; "Better Snapshots"—an article for the amateur who would get better results from his hand camera and improve the quality of those holiday snaps; "Ciné Pictures at Night"—practical instruction on the use and arrangement of lamps for taking home-ciné films after dark; "Modern Miniature Cameras"—a guide to the choice and use of the ultra-small camera, which, during the last year or two, has provided altogether new facilities in amateur photography. Other contents include notes on new methods, processes and gadgets for the varied branches of photography; reviews of new cameras, lenses, and other apparatus for ordinary and ciné photography, formulas and instructions for the various photographic processes, including colour photography. There is also a list of books and periodicals dealing with photography, and of photographic societies in the British Isles. There has again been included a sixty-four page album of fine gravure reproductions of the world's best photography for the year, while the advertising pages are a valuable buyers' guide to the apparatus and materials on the market. The retail price of the Almanac is 2s.

Almanacs and Calendars

ORMERODS, LTD., label printers, 125 High Holborn, London, W.C.1, have produced an effective wall calendar ($8\frac{1}{2}$ in. by 15 in.). Each weekly tear-off folio has a monthly calendar and space for memoranda.

T. RIDLEY & SON (CHEMISTS), LTD., Carlisle and Wigton, have again issued their useful almanac ($5\frac{1}{2}$ in. by $8\frac{1}{2}$ in., pp. 104). The almanac contains many interesting features, including a picture puzzle.

THE COLOURED COVER OF THE CHEMIST AND DRUGGIST is now recognised as a medium *par excellence* for the effective presentation of drug trade advertisements. J. F. Macfarlan & Co., manufacturing chemists, 109 Abbeyhill, Edinburgh, and 32 Bethnal Green Road, London, E.1, have chosen as illustrations for their three-monthly calendar (10 in. by $12\frac{1}{2}$ in.) four C. & D. front cover displays. These are, respectively, designs for brisettes, Macfarlan's ether and chloroform, Macfarlan's anæsthetic ether and opiodine, the layout, in each case, being a product of the C. & D. Art Department.

Marriages

HEWES — GRAHAM.—At Burnley, recently, George Hewes, chemist and druggist, to Agnes Graham.

LAMB — KIRK.—At St. Stephen's Church, Auchtermuchty, on January 4, Alexander MacLaren Lamb, chemist and druggist, to Ella Kirk.

Deaths

ARMSTRONG.—At Seaham Harbour, recently, Mr. Wilfrid Brewis Armstrong, second son of Councillor F. W. Armstrong, chemist and druggist, aged thirty-five.

BECKLEY.—At 19 Winterbrook Road, Herne Hill, London, S.E., on January 11, Mr. William James Beckley, aged seventy-six. Mr. Beckley was, until his retirement about two years ago, secretary for many years to Burgoyne, Burbidges & Co., Ltd., manufacturing chemists, East Ham, London, E.6.

BICKFORD.—At his residence, Fairway, Exmouth, on January 11, after a lengthy illness, Mr. John Bickford, chemist and druggist, aged fifty-four. Mr. Bickford was the proprietor of a business started by his grandfather in 1813 and subsequently carried on by his father and himself. He leaves a widow and a son.

BRAILSFORD.—At Sutton Coldfield, on January 12, Miss Ida Brailsford, chemist and druggist, aged thirty-five.

CHALMERS.—At Hounslow, on January 10, Mr. John Chalmers, chemist and druggist. Mr. Chalmers, who qualified in 1901, was a prominent member of the Heston and Hounslow Miniature Rifle Club. He was vice-president of the West Middlesex Branch of the Pharmaceutical Society, and had managed the Hounslow branch of Lewis & Burrows, Ltd., for the last twenty-five years. Mr. Chalmers was a quiet man of simple tastes and a kindly nature, which endeared him to all who came in contact with him. He leaves a widow, a son and a daughter. At the funeral the Branch was represented by Messrs. J. Dobson (president), F. C. Highfield (secretary), and S. Hughes. The local Branch of the National Pharmaceutical Union was represented by Messrs. A. Lawson (vice-president) and G. Gadsden.

COOK.—Recently, Mr. Albert S. Cook, Newcastle-upon-Tyne, for forty-six years with Messrs. Allhusen, chemical manufacturers, a constituent firm of the United Alkali Co., Ltd.

DAVIS.—At his residence, Rathmines, Dublin, on January 2, Mr. James Herbert Davis. Mr. Davis, who represented Genatosan, Ltd., in the Irish Free State, was very popular among pharmacists, and his demise is widely regretted. Prior to going "on the road" Mr. Davis spent some years in pharmacy with Hayes, Conyngham & Robinson, Ltd., Dublin. For a time he represented a firm of manufacturing chemists in India, South Africa and England.

FINDLAY.—At his residence, Wood View, Wythen-shawe Road, Northenden, on December 31, 1932, Mr. James Findlay, retired chemist and druggist, aged seventy-four. Mr. Findlay was for sixteen years in business in Church Road, Northenden.

KNOWLES.—On January 18, Mr. Louis Knowles, chemist and druggist, Brook Dene, Northwood, Middlesex, and 170 Clerkenwell Road, London, E.C.1, aged sixty-seven.

MCCLURE.—On January 5, suddenly, Mr. David Lindsay McClure, chemist and druggist, 66 Glebe Park, Kirkcaldy. Mr. McClure qualified in 1908.

POTTER.—At Somercotes, Alfreton, on January 7, Mr. Thomas Burbidge Potter, dentist, chemist and druggist, Leabrooks Road. Mr. Potter passed the Qualifying examination of the Pharmaceutical Society in 1894.

REDNALL.—In Germany, recently, Mr. William Rush Rednall, chemist and druggist, formerly of 1 Market Place, Wokingham, aged eighty-two.

RIGHTON.—At his residence, 50 Hoghton Street, Southport, on January 16, Mr. James Righton, chemist and druggist, aged eighty-one. Mr. Righton, who was a native of Chapel-en-le-Frith, served his apprenticeship to Mr. William Ashton, a Southport chemist. He commenced business on his own account in Bold Street, Southport, in 1876. Shortly afterwards he removed to the corner of Lord Street and Bold Street, and he had remained in business there ever since. He purchased the business of Mr. John Sykes, Hoghton Street, thirty-six years ago, and carried it on as a branch. Mr. Righton took a great interest in the Benevolent Fund of the Pharmaceutical Society. Whenever he found an opportunity, he was on the Southport sandhills studying his favourite subject of botany; and he came to be looked upon as a local authority on the flora in the Southport district. When the National Health Insurance Act came into force, Mr. Righton was elected a member of the Southport Insurance Committee; he remained a member to the end, and for the past twelve years had been the Committee's vice-chairman. He was a Past Master of the Rose of Lancaster Lodge and a prominent layman of the Methodist Church. "Never was a request too onerous for him to respond where it was at all possible for him to do so," writes a correspondent, "but anything in the nature of boasting was entirely foreign to his nature." He leaves a widow, four daughters and one son, Mr. J. H. Righton, chemist and druggist, who has been with his father in business since the war.

SUTCLIFFE.—At Heathroyde Nursing Home, on January 7, after a short illness, Margaret, the beloved wife of the late Mr. John Arthur Sutcliffe, chemist and druggist, 220 King Cross Road, Halifax, and loving mother of Mr. Robert Vivian Sutcliffe, M.P.S.

WHITE.—At a nursing home in Norwich, on January 11, Mr. Gilbert White, chemist and druggist, Burnham Market, aged fifty-nine. Mr. White, who was the son of the late Mr. Walter White, chemist, Litcham, Norfolk, qualified in 1898, and acquired the business at Burnham Market ten years later. He leaves a widow (who is carrying on the business) and two sons.

WIPPELL.—At his residence, Dungarvan, Powderham Crescent, Exeter, on January 12, Mr. William Joseph Wippell, aged seventy-nine. Mr. Wippell was connected for many years with Evans, Gadd & Co., Ltd., manufacturing chemists, Exeter. At the funeral, which took place at Exeter on January 16, Messrs. Evans, Gadd & Co. were represented by Mr. F. Southerden, Mr. Symes, Mr. Winsley and Miss Rew, while many employees were present. Among the floral tributes were wreaths from fellow directors, various departments of the company, and several organisations with which Mr. Wippell had been associated.

Wills

MR. ROBERT STENHOUSE, 73, 75 and 77 High Street, Musselburgh, Midlothian, chemist and druggist, who died on October 8 last, left personal estate in Great Britain valued at £3,254.

MR. ARTHUR OLD CORN, Barco, Broadlands Avenue, Shepperton-on-Thames, Middlesex, chemist and druggist, who died on June 8 last, aged sixty-seven, left £1,480, with net personalty £68.

MR. SAMUEL SUFFERN, of Lisnalyr, Ballygomartin Road, Belfast, pharmaceutical chemist, who died on August 15 last, left personal estate in Great Britain and Northern Ireland valued at £3,789.

MR. WILLIAM MALCOLM HARROLD, Braemory, Victoria Road, Forres, Elginshire, and of 83 High Street, Forres, chemist and druggist, who died on September 16 last, left personal estate valued at £4,032, of which £2,970 is in Great Britain.

Telegrams: "Atoleine Sedist, London." Telephone: Bernondsey 1141



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"The Chemist and Druggist" COMPACT LIBRARY

PRACTICAL METHODS OF URINE ANALYSIS

This department of chemistry is one which those behind the drug counter can profitably cultivate. The object of this book is to give chemists exactly the information they want on the subject. The book is written by a working pharmacist who is expert in the subject, and has been revised by a M.B., London. New edition in preparation.

THE CHEMISTS' DICTIONARY OF MEDICAL TERMS AND TREATMENT.

A small book which explains the meaning of medical terms as to which customers often inquire from chemists. In addition to concise definitions of these technical terms, notes are given on the treatment of the more important ailments. Price 3s. 6d., by post 3s. 8d.

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Chemists and druggists need to know something about diseases and their treatment, and this book fills the gap between books of domestic medicine and standard works for medical practitioners. (Fifth Edition.) Contains 264 pages. Price 5s. net., by post 5s. 3d.

PROVINCIAL HOSPITAL PHARMACOPEIAS.

Uniform with the "Chemists' Dictionary," contains 296 pages and consists of formulas for medical prescriptions used in twenty-two hospitals and infirmaries in Great Britain outside the London district. Price 3s. net, by post 3s. 2d.

THE PHOTOGRAPHIC CHEMIST.

This is a concise guide to chemists commencing and carrying on a photographic department. The book is a reprint of the treatise in *The Chemist and Druggist Diary*, 1926, with additional chapters and formulas. Price 3s. 6d., by post 3s. 8d.

WOOTTON'S CHRONICLES OF PHARMACY.

In two vols., maroon cloth, comprising 770 pages. Price 10s. 6d. net, by post 11s. 3d.

Published by "The Chemist and Druggist"

28 Essex Street, LONDON, W.C.2

Branch Offices: Manchester and Sheffield, England; Glasgow, Scotland; Melbourne and Sydney, Australia; Auckland, New Zealand.

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

A/181. Erepzin	B/181. Monopole syphons
S/161. Genzapan	I/021. Sunrise solid dentifrice
H/181. Genozin	O/181. Vel liquid cream
O/181. Ginette cream	L/171. Tonic Tabs (with trade mark of "Aladdin's Lamp")
O/181. Martin's nail powder	

THE CHEMIST AND DRUGGIST

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The Plimsoll Line

WHILE most of the branches comprising the chemical and allied trades have escaped the full force of the sweeping tide of uneconomic sales prices of the past two years, the markets dealing in natural products, particularly crude drugs and, to a lesser extent, essential oils, have not been so fortunate. The quoted spot market values of quite a number of these commodities are now at such a level that the ultimate net return to the producers not only probably leaves them without a profit, but possibly involves them in a loss. This problem seems to be more acute in the case of natural products than where manufactured goods are concerned, and is, there is little doubt, due partly to continued under-consumption and consequent accumulation of stocks. Whether it be metals, cereals, oils, sugar, tea, rubber or any of the other leading natural products which are the basic raw materials and commodities of industry and commerce, they are, with hardly an exception, quoted at prices which seem to be thoroughly uneconomic. And so, in the same way, are the less important products of the crude drugs and essential oils markets affected. The old rule, which for so many years proved to be sound, that the market value of a product was not less than its normal cost of production, has been completely upset, and it has not been replaced by any other principle which can be accepted as a safe guide to prudent selling or buying. In the past, almost any general market commodity was cheap and worth buying at a price below a definite figure. Until recently what seemed very cheap one week was found to be dear in comparison with prevailing prices a week or two later.

Crop Restriction

With the poor financial results of the last few years producers have reduced their output of many commodities in the two markets. The gathering of wild or semi-cultivated crops has been curtailed, sometimes not even paying for the cost of native labour. In the cases of the fully cultivated crops, reports continue to come to hand to the effect that growers have in many instances been ploughing in a proportion of their acreage, and in other ways restricting their output. During the past six months information from sources of origin in various parts of the world have been received indicating that surplus stocks are being cleared and that future production will not be excessive. Quite recently market values of some few products have advanced sharply, owing to shortage. The products in question have been of minor importance, but they may be taken as a warning of what may happen in other directions. If the current spot values of a number of commodities in the crude drug and essential oil markets are taken, some of which are liable to import duty

and on which the foreign seller loses on exchange rates, it will be recognised that the actual net returns to the producers are unsatisfactory. The spot values of these products, on average, are today appreciably less than those ruling at the time we were on the gold standard and before the operation of the ten per cent. general import duty. The natural reaction to such conditions is for growers and producers to go on cutting down their acreage and output.

Basis of Value

Buyers have become accustomed to purchasing on a falling market. It has been so unusual for prices to advance and so usual for them to decline that the former par values have been lost sight of. Cost of production must, however, sooner or later be the basis of sales prices; and it will not be surprising, now that many markets are not likely to be so badly overloaded, if prices of many crude drugs and some essential oils continue to move up from their recent low levels. Already there are a number of products that appear to have reached their lowest known sales prices and are now recovering. There is little fear of artificial inflation of values; but, given normal conditions, it seems reasonable to expect that, after some two years of almost continual depression, and now that the effect of the restriction of crops and the limitation of output is beginning to be reflected in the markets, values are likely steadily to appreciate during the course of the year.

Some Fourteenth-Century Medicaments

THE brief and inconclusive expedition of Edward II of England against the King of Scotland in 1322 is represented in the Public Record Office by only two documents—one a pay sheet of the men-at-arms at Leith, and the other a list of "medicinalia" provided by Master Stephen of Paris, the English king's surgeon. This list is written on one side of a sheet of paper measuring about 15½ inches by 6½ inches; on the back of the sheet is an endorsement with the amount, £9 3s. 9d., entered in two places. The amount is made up by the addition of £7 5s. 9d., the cost of the various items, and 38s., the cost of carriage from London to Newcastle by land, thence to Edinburgh "in Scotia" by water, and thence to Halyeland, where it was delivered in the King's "camera." The list comprises thirty medicaments, each priced after the manner of a modern invoice. It commences thus:—

Oxerocrosinum	iiij lb. at ijs per lb.	sm. vjs
Dyatarascos	iiij lb. at ijs per lb.	sm. vjs
Apostolicon	vj lb. at ijs per lb.	sm. xijs
Dyaulon	xij lb. at iiij d per lb.	sm. iiij s

The other items are:—Cerontum, 6 lb. at 2s.; Terbentyn, 12 lb. at 7d.; Scabies, 11 lb. at 7d.; Popillon, 10½ lb. at 8d.; —ssa, 6 lb. at 8d.; Laurinon, 6 lb. at 12d.; Unguentum Album, 12 lb. at 8d.; Unguentum fuskum, 12 lb. at 12d.; Gratia Dei, 4½ lb. at 2s.; Galbanum, 3 lb. at 2s. 6d.; Serapyn, 3 lb. at 16d.; Armoniak, 2 lb. at 16d.; Apoponak, 1 lb., 3s.; Bedellum, ½ lb., 6s.; Collosonium, ½ lb., 6s.; Mastik, 2 lb. at 2s. Olibanum, 3 lb. at 12d.; Sannguys draconis, 2 lb. at 2s. 6d.; Bl Armoniak, 6 lb. at 6d.; —erik, 2 lb. at 4d.; Semen lynei, 4 lb. at 2d.; Seruse, 2 lb. at 6d.; Mirre, 1 lb., 3s.; Calamint, 4 lb. at 4d.; Tutie, 2 lb. at 16d.; Litarge, 4 lb. at 4d. Beneath these thirty lines is written "— en ij paniers vjd." and "Fenum pur hakeneye ijd." The last line evidently refers to provender for the horses, and the penultimate line presumably relates to the packing. The worn condition of the left-hand side of this list renders the filling in of the few blanks more or less conjectural.

De Minimis

Notes on a lecture delivered before the Guild of Public Pharmacists, on January 18, by Mr. Wilfred Trotter, M.S., F.R.C.S., F.R.S., Surgeon to the University College Hospital

THE familiar saying from which I have taken my title and my text tells us that the law does not concern itself with very small matters—*de minimis non curat lex*. If this aphorism gives an authentic glimpse of the legal mind, it tells us also that that enigmatic organ differs sharply in at least one particular from the mind of science. For it is characteristic of science not to value things by their size or according to their apparent importance in the eye of common sense. The scientific world is a democracy of facts where the inhabitants are of equal standing and there is no table of precedence. Indeed, the progress of knowledge has been in great part the discovery of the importance of small things and the exaltation of the insignificant. The great development of the medical sciences in the last sixty years has got most of its strength from such a continued revelation of the minute. At its beginning was the demonstration of the meaning of bacteria in disease, about its middle the discovery of the vitamins, in its recent stages the study of the viruses. All these have been concerned with things or substances of which the effective action has been in spite of sizes or amounts excessively small. The theory of microbic disease displaced supposed causes of what we may call naked eye size—cold and wet, damps, miasmas and infected airs. For them it substituted bodies at that time almost inconceivably small—the veritable minims of nature. I use that term “minims of nature” to express the smallest imaginable dose of life, not only because in that sense it has good authority behind it—no less for example than that of John Milton—but because in this company it must come to our ears with a homely sound. Perhaps we may regret that the pioneers of bacteriology did not revive it instead of inventing in 1878 the term microbe out of misused Greek. If they had been content with established English a pleasant link would have been left between the language of pharmacy and that of pathology. We might well also have been grateful to be able to speak of the viruses as “minims of nature” when we learn that there are among them living particulate and formidable agents so small as to surpass by little the individual molecules of hæmoglobin.

The theory of deficiency disease introduced to pathology a principle as wholly new as did the microbe. Like that it involved an immense change of scale and the demonstration that what might be called the naked eye view of the constituents of the living body was inadequate. But the new principle was of a different kind from that necessary to found bacteriology. No pursuit of the old climatic and sanitarian theories of disease with whatever thoroughness could ever have led to the doctrine of microbic pathology without the revolutionary inquiries of Pasteur which disclosed an unsuspected mode of existence. On the other hand, dietetics failed to disclose the vitamins because inquiries had not been exact and exhaustive enough. The problem of the vitamins was in fact a residuary problem. The dietetic field had been harvested and even gleaned except for what seemed a few inconspicuous remnants that for a long time it was agreed to ignore. Yet it was these very residues that were to yield the richest harvest of all. This peculiarity makes the solution of the vitamin problem of special interest to the student of scientific method. It is therefore as the leading recent case of a problem of the residuary type that I have reminded you of it, for I propose to call your attention in some little detail to that class of problem and its significance for the theory of method.

The economic value of working over rejected residues has often been proved by the mining engineer and the metallurgist; similarly the need for vigilance in securing complete exhaustion of raw materials has shown its value to the chemist and the pharmacist. These lessons may usefully serve as metaphorical injunctions in the prosecution of scientific research itself. Time after time it has

been shown in the latter activity that the humblest residual phenomena have concealed great secrets. In order to give this point all the salience I can, I shall go outside the field of medicine, and even of the biological sciences, to that of inorganic chemistry, and shall venture to recall to you the familiar and even hackneyed story of the finding of argon and the other inert gases of the air.

II

In the last quarter of the eighteenth century the study of the elementary gases was being pursued in England with much activity. Among those who were thus engaged we chiefly remember to-day the names of Priestley, Watt, Black, and Cavendish. Of these Henry Cavendish was perhaps the ablest investigator as he was certainly the most extraordinary man. He was a millionaire and grandson of a duke; yet his mode of life was hermit-like and spartan, his manner shy to the extent of oddity, and though he was a great experimenter the publication of his researches was notably careless and hesitating. This last characteristic left his reputation for long far below his merits, but to give a measure of his real quality we need only recall that he was the first to demonstrate the constitution of water by hydrogen and oxygen and its synthesis from those elements.

Sometime before 1785 Cavendish was studying the separation of nitrogen from the air. He used the method of passing a stream of electric sparks through a glass tube containing air mixed with excess of oxygen. The nitrogen and oxygen combined to form an oxide of nitrogen which was absorbed by a solution of caustic potash, while the oxygen was removed by another absorbent. When, therefore, the process was complete and all the nitrogen oxidised, his tube should have been empty of any gas. But the result was different and I will quote his description of it, using however the modern terms for the gases concerned. After these processes he says “a small bubble of air remained unabsorbed which was certainly not more than 1-120th of the [nitrogen] let up the tube. So that if there is any part of the [nitrogen] of our atmosphere which differs from the rest and cannot be reduced to nitrous acid we may safely conclude that it is not more than 1-120th part of the whole.” That bubble, of course, was argon. Cavendish had seen it, but argon remained undiscovered. If curiosity was aroused at any time during the next century by this ambiguous residue in Cavendish's eudiometer, it has left no record; and we may be sure that any questionings were invariably stilled by the comfortable assumption of experimental error.

III

It was over a hundred years later, in the last decade of the nineteenth century, that the meaning of this residue was explained, but the residue itself had first to be rediscovered by a wholly different line of approach. Chiefly owing to the work of Cavendish and his contemporaries, inorganic chemistry had experienced a continuous and successful development; but it had now fallen, as those of us who were students then can well remember, on rather hard times. It had reached one of the flat periods to which all purely experimental sciences seem to be subject. The inspiration derived from its founders after burning brilliantly for so long was dying down. Ideas were few and—an even more ominous sign—were apt when they were all speculative to be deprecated in the name of science. This dread of speculation, and the disguise of it as scientific austerity, are characteristic symptoms shown by an experimental science when its life is running thin. Such phenomena were, for example, apt to appear in the discussion of one of the few speculative conceptions that had found any kind of currency among chemists—the once famous

"Prout's hypothesis." William Prout, it may be of interest to recall here, was a doctor as well as a chemist, and the discoverer of the presence of free hydrochloric acid in the gastric juice. As early as 1815 he enunciated the view that there must be a simple numerical relation between the atomic weights of hydrogen and the other elements, and that hydrogen was a sort of elementary substance that in some way entered into the composition of the others. Even on the evidence then to be reckoned with, this was a sensible and not very recondite guess, but in the next seventy or eighty years it produced from time to time a surprising amount of indignant criticism. It must, of course, be admitted that to those who had comfortably settled down to the view that each element is made up of irreducible indivisible billiard balls of a special kind, it was an irritating and repulsive dose. By them it was naturally criticised as a flighty departure from scientific rectitude, and I can well remember the feeling some of my teachers gave me that it was a little disreputable even to entertain such an idea. Yet it was true; and it gave the hint that was to begin an energetic revival and extension of inorganic chemistry.

The hint was taken by a man whose personality (fortunately preserved for us by his son in a notably graphic memoir) would in itself justify the recall of the events that ensued. The third Lord Rayleigh was born into a family of country squires and landowners, and in many respects was thoroughly representative of his class. He was as strong a Conservative, as sound a church-goer and as firm an upholder of the established order as his position and convictions demanded. He was brought up among the assumptions of a world which seemed to itself endowed and established forever, and which is still indestructibly preserved for us in the annals of Middlemarch and Barchester. The main physical circumstance of his youth was the profound security of rural England, where the mild landscape and the deeply rooted village looked humbly to the Great House standing side by side with the church. Experience shows that a type and an environment such as this are not among the richer sources of our scientific masters. But they permitted Rayleigh, as they had permitted Henry Cavendish, to become one of the leading physical investigators of his day; and they perhaps reinforced, in the case of Rayleigh, the caution, the patience and the stable judgment in which he conspicuously excelled.

It was these last gifts that were to be of decisive value when, in 1882, he yielded, as many physicists had done before, to the siren song of Prout's hypothesis, and made up his mind to decide once for all whether, if every precaution that even his patience could suggest were taken, it might not be possible to show that a simple arithmetical relation did obtain between the atomic weight of hydrogen and those of the other elementary gases. This involved the weighing of these gases under exact conditions, and was, of course, an enormously laborious task. After some years the work on hydrogen and oxygen was completed, but though it failed to bring the atomic weight of the latter nearer to the hoped for 16 than 15.882, we find him in 1892 at work on nitrogen, which had promised to be technically a less arduous affair. Things went well with this, and he was comparatively soon in possession of a stable weight for the gas that satisfied his exacting standards. He might well have supposed his task was done, but in fact he was innocently approaching its crisis. He had been weighing nitrogen got from air, and therefore, as we now know, mixed with the heavier argon. This would be discovered only if the weight obtained were compared with the weight of nitrogen got from chemical decomposition, and therefore free from argon. He stood thus at the parting of two courses of infinitely different significance. A good and consistent series of weights had been obtained; any man might have been satisfied with such a result. Down that road lay a moderate satisfaction and relief from a long and inexpressibly tedious research, but nothing else. He might, on the other hand, decide that he must confirm his results by work on nitrogen got from another source than air. Down that road, all unsuspected, lay heavy labours and anxieties, but also lay the finding of argon and consequences beyond any dream. There cannot

have been many more critical moments in the history of science.

IV

It is a natural impulse of historians to make a good deal of what are called the turning points of history. At these nodes in the story of the past there is apt to be a concentration of issues on a single hour or on a single man, an intensification of meaning that gives dignity even to the trivial, a heightened illusion of freewill in the actors. All these combine to endow the vague historic plungings of mankind with an air of design and æsthetic structure, so that it is but a poor historian who does not make an effective scene of Cæsar at the Rubicon, or Charles Edward at Derby. The history of knowledge has not been much recognised as yielding moments of an equal intensity, perhaps because its high occasions are undecorated by trumpet or banner, and call to mind no sound of marching feet. But to the ear in tune with the finer vibrations of reality, science has had its crises which give a not less authentic thrill, and this was one of them. We watch Rayleigh at this turning point in the history of knowledge with a confidence that is derived from our knowledge of his character as much as from our knowledge of the sequel. His caution and patience and judgment now had their unique opportunity. He decided that nitrogen prepared from chemical combination must also be weighed to confirm the weight obtained from atmospheric nitrogens, and he was soon brought up against a clear and unshakeable discrepancy between the two results; the chemical nitrogen was $\frac{1}{2}$ per cent. lighter than the atmospheric nitrogen. It is not necessary to follow the steps of the toilsome research by which it was proved that the excess weight of the atmospheric nitrogen was due to mixture with an unknown constituent of the air. At the end it became clear that this unknown gas was the "small bubble of air" which had "remained unabsorbed" in Henry Cavendish's eudiometer, and whose enigmatic presence had stood in the background of chemistry inviting curiosity in vain for over a hundred years. It was composed of the inertest substance in the physical world. In the intellectual world, however, it produced a veritable series of explosions. Argon led to helium and neon; helium pointed the way to the mode of disintegration of the radio-active atom, neon to isotopes and the meaning of the periodic succession of the elements. It is, therefore, no departure from rational moderation to say that this historic "bubble of air" was one of the most pregnant residues in the whole history of chemical analysis.

Whatever intrinsic interest this old story may possess, and even if I could have been sure that any would survive my recital, I should not have ventured to tell it except as a classical illustration of the significance of residuary phenomena in the history of science. That general lesson must surely provoke us to ask what application of it we can make in the departments of knowledge with which we are more specially concerned. I propose, therefore, to consider briefly certain aspects of medicine to which it may be relevant.

V

The fundamental activity of medical science is to determine the ultimate causation of disease. That statement sounds like a complete commonplace and should be one. We may perhaps, however, feel some doubt whether we all of us keep it in mind as clearly as we might. The brilliancy and the practical value of the great discoveries that have elucidated the processes of disease tend a little to obscure the fact that many of them tell us nothing about ultimate causation. Thus we are apt to speak of the treatment of myxœdema by thyroid extract or the treatment of diabetes by insulin as if the primary pathological state were affected by these remedies instead of being merely compensated for. As a matter of fact, when we come to survey more attentively the general state of medical science we cannot but be struck by the slight extent to which much recent progress—as, for example, that on the relation of internal secretion to the production of symptoms—has enlightened us in the matter of ultimate causes. A great deal of this work, though of course of the greatest value, has been on what we may call the physiological level and has scarcely penetrated to fundamental pathology.

It may be interesting, therefore, to glance over in a summary way the actual situation as regards our knowledge of the causation of disease. At present we can enumerate only six agents of disease:—

Injury	Poisoning
Malformation	Parasitic infection
Defect of diet	Neoplasm

Of these it will be noticed that two—malformation and neoplasm—are not to be regarded as primary in a strict sense, since in time they will almost certainly be resolved into other factors. Setting aside, therefore, the pathological phenomena deriving from these two, we may say that we have for the explanation of the whole of the rest of disease only four principles—*injury*, *defect of diet*, *poisoning* and *parasitic infection*. Let us now approach the situation from another aspect. The diseases known to us fall into three groups: first, those that can be assigned with certainty to one of the four causes we have enumerated; secondly, those which have been assigned with more or less probability to one of these; and, thirdly, those of which the cause is unknown. The rate at which fresh diseases pass over from the third group to the first, and are found to be due to one of the known kinds of cause, is nowadays slow, and tends necessarily, other things being equal, to become slower. The question, therefore, inevitably arises whether a time may not come and how far away it is when the application of known principles to the explanation of disease will be at a standstill. Another way of putting the same question would be to ask how far it is likely that the further extensive explanation of disease depends on the discovery of some totally new principle comparable with the microbe or the vitamin. Consider such common and serious diseases as exophthalmic goitre, diabetes and disseminate sclerosis. They have been under investigation for a long time and with an increasing refinement of method, yet, however much we may have learnt of their mechanism, we still know nothing about their ultimate causation. Are they likely to be brought under causal mechanisms we already know, or are they and other diseases in a similar situation, like the residuary "bubble of air" in Henry Cavendish's eudiometer, awaiting for their explanation some radical fresh development? In answer to these questions we cannot make even a plausible guess.

In the last sixty years two wholly new causes of disease have been discovered—microbic infection and vitamin deficiency. The first of these explained a group of diseases which carried a certain broad clinical resemblance, so that a very acute clinician, in the days before bacteriology, might well have been able to guess that whatever their causes, they were of the same general order. The case was strikingly different with the diseases explained by vitamin deficiency. In their clinical manifestations these were remarkably miscellaneous, and showed differences of the widest kind, such as, for example, those between rickets, beri-beri and scurvy. No clinician, however alert, could have guessed that they were due to cognate causes. Furthermore, the deficiency diseases seem actually to mimic the diseases caused by other agents; consider, for example, the resemblance between vitamin-B deficiency and alcohol poisoning, each with its acute cerebral symptoms and chronic peripheral neuritis, and the resemblance of scurvy to an infection. The discovery of deficiency diseases has thus disclosed that allied causes may produce clinical effects showing no hint of any kind of relation, and has thus made it more difficult than ever to infer from clinical phenomena any suggestion as to new prime agents of disease.

VI

I should have hesitated to indulge in these extended reflections about residuary phenomena in relation to science in general, and medicine in particular, if I had intended to abandon the subject in the complete blind alley into which it seems to have led us. It is true that we can form no reasonable opinion whether the great mass of disease still remaining unexplained will be cleared up by the more thorough exploitation of principles already known to us, or whether its final elucidation will be in any or in great part made by the discovery of some new kind of cause. Engaging as that problem must

be to any philosophic student of medicine, it must remain for the present in the region of insoluble conjecture, but its interest may have a useful property if it sends us for some hint of guidance back to the history of science. If we may be allowed to return for a moment to a topic on which we have perhaps already too inordinately dwelt, we shall recall that the discovery of argon was due to Rayleigh's determination to carry the measurement of the known phenomena to a finer point than had yet been reached. In his branch of knowledge the saying that science is measurement was already familiar and manifestly true. As an indirect result of his work the idea can now be carried much further, and we can say that, at least in the atomic world, all quality is quantity. In such a doctrine we seem to be very far from the biological sciences, and still further from anything that could ever be recognisably human. Nevertheless, it may remind us that the need and use for exact measurements in those sciences have steadily increased and must continue to do so.

Up to the present time medicine has almost wholly avoided the burden of measurement. Its field is so rich and various that qualitative methods of inquiry have proved at least adequate. Signs, however, are beginning to be perceptible that perhaps the main harvest of those methods has been gathered. If these omens are fulfilled, a time will come when an exact and exhaustive numerical exploration of the facts of disease will have to be undertaken. When we contemplate the practical success and the continued progress of medicine we are apt to overlook the fact that it is without precise data. Consider merely the distribution of health and disease in relation to topography, climate, race, sex and age. Our knowledge of these fundamentals is a series of the vaguest approximations; if we had really exact knowledge of them it is quite probable that many problems of causation now insoluble could be solved by inspection. A similar lack of real exactitude is present in our knowledge of normal functions such as the pulse rate, temperature, sleep, appetite, right-handedness, weight and muscular strength, and above all in our knowledge of the extent to which these functions are capable of adaptation. It is obvious that to obtain information of the required precision on matters such as these is altogether beyond the range of the individual worker. Thus our final conclusion must necessarily be that if medicine is to acquire a secure foundation of exact and measured data, it can do so only as the result of inquiries far more widespread and co-ordinated than have yet come within the range of practical contemplation.

The considerations we have surveyed have led us through a course of which the windings may not have shown any very clear relevance to this occasion. Our conclusion, however, could not have been reached in circumstances more appropriate. The only branch of medicine which has always and with increasing intentness and success pursued the ideal of exact measurement is pharmacy. I do not think there can be any reasonable doubt that the future of the parent subject to a large extent depends on how far she is able to adopt the characteristic method of her daughter.

"PLEASE for a 2s. 9d. bottle of parliament" was the request recently made to a Scottish chemist.

A WELL-KNOWN Manchester pharmacist, on opening his pharmacy for Sunday evening duty, was greatly astonished to receive a request from a child of about six or seven years of age, for two "Yo-Yo" strings.

LIP-READING FOR THE DEAF.—"Lip-reading is of tremendous benefit to a person who is shut off from the normal contacts of life. Once the art is cultivated, the deafened person's whole life is changed, but because of faulty enunciation by a thoughtless public the difficulties are made much greater than they need be. It is most important that in speaking to a lip-reader the vowels and consonants be given their full value; that the lips and tongue be given free play; that the jaws be opened wide enough to characterize the vowels; and that the syllables and words be spoken with naturalness and precision. Much too often the speech is localized at the back of the mouth and the visible speech organs given little movement."—From a letter in "The Times."

A Plea for Concentrated Waters

By J. H. Franklin, Ph.C., Chairman of the British Pharmaceutical Conference, 1931

IN a brief monograph written in 1926 I pointed out that the aromatic waters of the British Pharmacopœia, 1914, occupied a peculiar position in medicine and pharmacy; the standard authority for their preparation was often ignored, and one could be quite certain that in a large number of cases a concentrated water would be used instead at the dispensing counter. I added that the process of making the aromatic waters of that Pharmacopœia was impossible for many, on account of the absence of a suitable distilling apparatus. The therapeutic value of these waters was very slight, and they might safely be considered as simple carminatives or flavourings; consequently the same results could be obtained by a solution of essential oil in alcohol, as in the 1 to 40 concentrated waters of commerce. The following waters are rarely used: Aniseed, caraway, fennel, spearmint; and the following frequently: Dill, cinnamon, peppermint, orange-flower, rose. It was suggested that the methods of preparing the 1914 B.P. distilled waters should be abolished, and sound formulas for concentrated waters introduced into the new British Pharmacopœia; and that this method should also be adopted for rose and orange-flower waters. The note was not published owing to my appointment on the Pharmacy Sub-committee of the British Pharmacopœia.

The New Concentrated Waters

Concentrated waters have been introduced into the 1932 Pharmacopœia, and the formulas have some slight defects which should be pointed out. Three different methods of preparing aromatic waters are given in the B.P.—distillation, shaking the oil with water, and dilution of the concentrated water; but there are three other methods of preparing them, using powdered talc, kieselguhr or pulped paper; so we may almost say we have six methods. Six, or even three, methods for making such simple remedies are excessive, and, as will be shown, the products differ considerably.

In the formulas for the concentrated waters in the 1932 B.P. we are directed to shake each 1,000 millilitres of finished product with 50 grams of powdered talc, and, after a few hours, to filter. This large quantity of powder soaks up and retains a big percentage of the expensive material, and the result is a considerable monetary loss. The B.P. directions should read: "Allow to stand, remove excess of oil, then shake with a small quantity of powder and filter." If the suggested directions are followed and a suitable powder is used for filtering purposes, one-fifth of the quantity stated in the B.P. will suffice, and it is conceivable that one-tenth would be satisfactory with some operators, the result being a larger product and a marked saving in cost. It has been pointed out in the trade journals that when the concentrated waters of the new B.P. are diluted with 39 times their volume of water a cloudy mixture results, with a suspension of minute globules of oil, which form a greasy film on the surface when the water is allowed to stand. This can be largely overcome in the case of the dill and cinnamon waters if the dilution is vigorously shaken for a few seconds, but shaking does not result in the globules of oil in the peppermint water being dissolved. Experiments to overcome the difficulty of cloudiness and separation of oily globules should be started.

Adopting the distilled aromatic waters as standards, it is found that dill water prepared from the B.P. concentrated water is only approximately 35 per cent. as strong as the distilled dill water; cinnamon water under the same conditions is 50 per cent. as strong as the distilled; and peppermint water 85 per cent. as

strong as the distilled. This will cause big variations in medicines prepared with the different dill and cinnamon waters allowed by the B.P.; and dill water given to young children may be three times the strength in some cases, or it may be only one-third the strength when the source of supply is changed. It therefore appears to be impossible to produce uniform products using 2 per cent. of oil in each case; the following table shows the difference in strength of the B.P. and the B.P.C. concentrated waters:—

Name	B.P.	B.P.C.	Proposed
Aqua anethi concentrata...	2%	6%	About 5%
Aqua cinnamomi concentrata	2%	2%	About 4%
Aqua menthæ piperitæ concentrata	2%	3%	About 2.25%

The proposed percentages will give concentrated waters approximating to the distilled waters in strength; and if they are made so that the dilutions are clearer and approximately free from globules of oil, a considerable advance will be made.

Dental Creams

THE flavouring of dental creams is important, as, unless the flavour appeals, good sales cannot be expected. It has for long been customary to use for this purpose essential oils and other products having good antiseptic properties, although experiments have shown that they are not in contact with the mouth sufficiently long to have any marked medicinal effect. The public, however, in consequence of this practice, has acquired a predilection for certain types of flavours. Peppermint is most popular, and this is partly to be attributed to the fact that the menthol present in the essential oil produces a pleasing cooling effect. Peppermint oils vary much in flavour according to source, and care should be exercised in selecting an oil for flavouring dental creams. Eucalyptus is also popular, and blends well with peppermint, the latter oil being kept somewhat in excess of the former. Thymol is also used, but in quite small amounts only. Methyl salicylate or oil of wintergreen gives good results in conjunction with peppermint oil, the amount used being not more than one-third of the latter. Clove oil, or eugenol, and aniseed oil, or anethole, may also be employed in conjunction with peppermint. Ideas differ widely as to what is the most suitable proportion of flavouring material to incorporate in a dental cream. Some tastes favour very lightly flavoured creams, while others prefer the exact opposite. From 1 to 2 per cent. may be taken as the average, but these limits may be departed from in either direction if desired. A sweet taste is desirable as a background for the appreciation of the flavour. Especially in the case of dental creams containing much soap, it is desirable for them to be well sweetened and flavoured. Glycerin and honey, both used as excipients, help to sweeten dental creams; but it is advisable to increase this effect by the addition of a small amount of saccharin. About 1 part per thousand may be taken as an average proportion. It is well, however, to keep the saccharin on the spare side, as otherwise the flavour of the cream may be marred by an unpleasant after-taste.

SO THAT IS THAT.—"Technocracy affirms that all our activities are based on an assumption that we live in conditions of scarcity as regards our physical needs, whereas the perfection of machinery in recent times has created conditions of an entirely opposite character—i.e., plenty. The fact that our old-fashioned technique of life (that of scarceness) is out of relation to the new conditions (those of plenty) causes our output to be inaccessible to those in need of it. The purpose of Technocracy is to find a new technique of life suited to the new conditions."—Quoted by a correspondent of "The Times."

Poisons and their Effects

Abstract of an address given to an evening meeting of the Pharmaceutical Society in London, on January 10, by Mr. G. Roche Lynch, O.B.E., M.B., B.S. (Lond.), D.P.H., F.I.C., Senior Official Analyst to the Home Office.

IN popular language a poison is a substance which, when taken in small quantity, is capable of causing illness or death. But such a definition is far too restricted from a scientific point of view. For instance, it would obviously exclude certain of the less poisonous substances, such as copper, where very large doses are required to produce serious illness, and of course copper very rarely causes death. A more scientific definition is perhaps as follows: "A poison is a substance which, when taken by the mouth or when absorbed into the blood is capable of seriously affecting the health or of destroying life by its action on the tissues with which it immediately or after absorption comes into contact."

From the chemical standpoint, there are four landmarks in the history of toxicological investigation.

1836.—In the Edinburgh "New Philosophical Journal" for October 1836 was reported the first application of the test for arsenic discovered by the Englishman, J. M. Marsh. Marsh's test for arsenic, with improvements, remains to-day the most reliable and delicate test.

1839.—Orfila, who may be described as the father of toxicology, extracted a quantity of arsenic from various organs of a suicide. In previous cases it had only been isolated from the intestinal contents. The significance of that, of course, is that he actually isolated the arsenic from the liver, kidneys, and tissues of the body and established an important point in poisoning, namely, that the chief action of the poison was after it had been absorbed in the alimentary canal, and that the chief action was on the tissues themselves. Actually isolating the arsenic from the liver and kidneys was a very great advance.

1844.—Fresenius and von Babo worked out a scheme for the systematic search for mineral poison, and to-day this is still the best process.

1850.—As the result of poisoning by nicotine of Gustave Fournies by Count Bocarme, his brother-in-law, Otto von Stas, devised a process of separating alkaloids from the tissues, which with modifications is still the standard process to-day.

An Important Point

There is one point to which I would now allude, and one which is of extreme importance. Every day we see new drugs appear on the market, for each of which some wonderful and specific action is claimed by the vendors. Such claims are frequently based on the slenderest evidence, often unreliable, so that one more drug is added to the already extensive list of mostly inefficient drugs for the purpose required. I do not suggest that pharmacists should stand still and see that no new drugs are to be invented, but I should like to see all new preparations subjected to the most rigorous tests of two types prior to their production; one group of tests to be made from a pharmacological standpoint, both laboratory and clinical, and a second from the toxicological standpoint. I could mention many drugs which although in common use are actually dangerous poisons and capable, even in medicinal doses, of causing severe illness or even death. For example, thallium acetate, used for ringworm, has been responsible for paralysis, blindness and death, because the dose required to cure ringworm by epilation is only slightly less than the toxic dose. Quinoline derivations of the atophan type have caused severe skin lesions, jaundice and death, and in the latter case 15 grains taken for six days only has achieved this end. Avertin has been shown to cause fatty degeneration of the liver. There is the barbituric acid group. Many of these are highly toxic, and one of the latest, nembutal, the dose of which is $1\frac{1}{2}$ grain, nearly killed an individual when it was taken with bromide, $4\frac{1}{2}$ grains being taken

over a period of twenty-five hours. Suicide by these drugs, owing to the ease with which they can be purchased, is becoming an everyday happening, and they are largely taking the place of morphine for this purpose. Of course, in addition to barbituric acid are drugs of addiction. A habit is readily formed of taking these drugs, with the result that physical and moral degeneration takes place.

The story of the toxicity of manganese is of great interest, and perhaps I may be permitted to mention it at some length. First, many foodstuffs contain manganese, and cattle food even greater amounts up to 150 parts per million. Manganese is present in the majority of water supplies, and in some instances in Germany cases have occurred where one of these compounds has actually caused the clogging of water pipes with black material, probably manganese dioxide. Many of the water supplies on the south coast of England contain excess of manganese, and in one case I know of the water has come out of the pipes black. According to one authority, amounts up to 5 parts per million cannot be tasted. I have been unable to trace any ill effects from the drinking of such waters. Manganese both in soluble and in insoluble forms has been given by mouth to animals for periods of many months, and in no case have any ill effects been noted, nor have the organs contained excess of manganese. Manganese has been given in medicine for septic lesions, both by mouth and by injection with good results. On the other hand, Findlay has produced changes in the liver and kidneys of rats when a solution of manganous chloride has been injected intravenously at intervals over a period of time. The change in the liver has been similar to alcoholic cirrhosis or so-called gin drinkers' liver. Yet Boycott and Cameron have estimated the manganese content of many foods, drinks and condiments, and have come to the conclusion that a vegetarian teetotaler would probably take in more manganese than a heavy drinker. But here comes the other side of the story of manganese. In industry a well-recognised syndrome is scheduled under the Workmen's Compensation Act, and is due to the inhalation of manganese compounds in the form of dust, chiefly the oxides. This condition may appear after three months' exposure.

The story of zinc is to some extent similar. Poisoning when compounds of the metal are taken by the mouth is negligible, but the inhalation of zinc compounds gives rise to so-called brassfounders' ague.

Aluminium

At the present time there appears to be a wholesome fear in the minds of the public that they are taking their lives in their hands when they use aluminium utensils for cooking. It would be highly instructive to know the true history of how this scare came about; but there are certainly a few medical men whose mission in life appears to be to preach the dangers of this metal. We are all agreed that the use of aluminium in baking powder, now fortunately rare, is to be deprecated, especially as more efficient and quite harmless substitutes are available. The Society of Public Analysts were fortunate a few months ago in having a valuable paper on this subject by Dr. Burn, which was followed by a full discussion, when many authoritative views were expressed. Dr. Burn has shown in his paper that exhaustive feeding experiments have been made with aluminium, both on men and animals. The effects of injection, as well as administration by mouth, have been described by him. He has shown clearly that growth and reproduction are unaffected by this metal, and that the toxicity of aluminium is negligible in amounts likely to be present in foodstuffs as the result of using aluminium vessels.

There have been many letters written by doctors to medical journals suggesting that gastritis, gastric ulcers and cancer may be caused by this substance. These have shown that patients that were suffering from indigestion when aluminium was being used in their households became quite free from this trouble when the use was given up. Evidence of this type, of course, is worthless, for apart from the psychological factor, one of the most dangerous lines of thought in medical science is the association of cause and effect, unless all other factors can be absolutely controlled, and this is practically impossible in medicine. One of these aluminium "enthusiasts," if I may call him so, found 300 gr. of aluminium per gallon in a stew that was made in an aluminium vessel. That means that with an aluminium pan weighing three ounces, you would require a new pan after making twenty stews. The moment the aluminium salts reach the small intestine they are converted into insoluble carbonate, are not absorbed, and therefore do no harm. When injected, aluminium is far less toxic than manganese.

Arsenic

I should now like to say a few words about that most intriguing of all poisons—arsenic. As I have stated, this has been used for homicidal purposes for all ages. This is scarcely to be wondered at, for white arsenic is odourless, tasteless, is indistinguishable from flour or powdered sugar, several possible fatal doses easily can be placed on a threepenny-bit, and the symptoms it produces closely resemble the symptoms one would expect to find in a person who was made acutely ill by an attack of so-called food poisoning, such as occurs from infection by the *B. enteritidis* of Gaertner.

When a person is taking arsenic, some of the arsenic is deposited in the skin tissue, that is the hair, skin, and nails. This is deposited in quite considerable quantity, so that if, for instance, a quantity of arsenic is found in the hair at the time of analysis, it is known that the patient must have had a dose of arsenic some few days or weeks before, according to the position in which the arsenic is found in the hair. In one case, a lock of hair 4.5 in. long was divided into three portions. The amounts of arsenic found in each portion were: proximal portion, 23 parts per million; middle portion, 15 parts per million; distal portion, 10 parts per million. As hair grows approximately 0.5 in. per month, it is obvious that the individual must have been taking arsenic for at least seven months.

As an example of the amounts of arsenic that can be found in the skin tissues, a friend of mine, a doctor colleague, was recommended to take arsenic for a certain disease. He actually took arsenic for practically a year almost without a break, and was at times taking nearly 0.5 grain a day. At the end of the year, when he was commencing to show signs of peripheral neuritis, he knocked the arsenic off. He gave me a sample of his hair and some nail parings. I found that the hair contained 40 and the nail parings nearly 100 parts per million.

The choice of the poison used by the suicide is of interest. The male used to favour opium and cyanide, and the female carbolic acid. Hydrochloric and oxalic acids were equally popular. To-day the Dangerous Drugs Acts have practically eliminated opium and morphine from the list, their place being taken by the barbituric acid-veronal group and coal gas. Carbolic acid, with the female, has also largely disappeared in favour of lysol. Coal-gas poisoning has increased to an enormous extent.

So far as tolerance is concerned, the organism appears to be able to acquire the property for almost every known poison, the chief exceptions to this statement being certain poisons of animal origin which appear to have in some cases an opposite effect, for example, snake venom, serums. We find that a tolerance may be acquired to all narcotic drugs, many metallic poisons, e.g., arsenic, to alkaloids, such as strychnine or nicotine, and even to such drugs as castor oil. This acquired tolerance is not without effect on the individual. The arsenic eaters of Styria (which we must regard as a true bill, but I doubt the amounts they are credited with taking, though they do take large quantities of arsenic) do not

get off lightly, and there is no doubt that many sooner or later show signs of chronic arsenical poisoning, but they take quantities which would kill us and would certainly produce neuritis in us much more quickly. The opium eaters, hashish takers, and veronal habitués all suffer in health and show both physical and mental changes.

The most interesting case which has come to my knowledge is one of strychnine tolerance. A woman was given a prescription for paraldehyde which contained 5 minims of the tincture of nux vomica, which of course contains strychnine, and no doubt was given partly to overcome the depressing effect of the paraldehyde. She took this over a period of years, and took increasing doses of the medicine to such an extent that shortly before her death, which was largely brought about by the effects of paraldehyde poisoning, she was actually taking over one-half of a grain of strychnine a day. Half a grain is a possible fatal dose.

Points in Diagnosis

The following points may be borne in mind when the question of the diagnosis of poisoning is being considered:—

1. Most poisons when taken in large doses will produce symptoms immediately or within a short time of the taking. Even when comparatively small doses are given, each dose will produce an exacerbation of the symptoms, and negatives the popular idea that in slow poisoning the patient slowly dies of gradual weakness.

2. The appearance of sudden acute symptoms in a person of normal health or in stationary bad health is a suspicious fact. There are, of course, exceptions to this.

3. In a person suffering from some disease a sudden change of the symptoms is suspicious, unless the change is a characteristic of the disease.

4. Poisoning usually occurs in relation to the taking of food, drink, or medicine, and a change of taste may be significant. In an acute attack of food poisoning, which is similar in many respects to some forms of poisoning, you get diarrhoea and vomiting, but the time intervals between the taking of food and the first vomiting is usually six to twelve hours, whereas in poisoning it may begin in as many minutes.

5. Food poisoning generally affects all or nearly all partakers, usually in poisoning there is only one victim. Occasionally one finds multiple poisoning.

6. In many cases the course of the illness is increasing severity and death, or increasing severity, a turning of the corner, followed by a rapid recovery to health, which is much more rapid than in disease.

7. In many medical illnesses one gets warnings or premonitory symptoms, e.g., headache. In poisoning these do not occur. Finally, speaking broadly, there is no single symptom of poisoning and no definite group of symptoms which are characteristic of poisoning, but on the other hand there is no poison which gives the changing aspects of disease, and no disease which gives all the features of poisoning in number and sequence. The closest likeness to disease is acute arsenical poisoning, and the closest likeness to poisoning is uræmia in its acute form.

The control of the distribution of poisons in this country is largely in the hands of members of this Society, and so long as it remains in such capable hands, I feel we shall have but little to fear. Of course, the determined poisoner will obtain material no matter what restrictions are made, so it is not fair to the community virtually to prohibit the sale of poisons. But it is also clear that whatever changes are made in the regulations for the sale of poisons, they should be in the direction of the tightening, not loosening, of these regulations. Thus I am a little apprehensive of some of the provisions of the proposed Poisons and Pharmacy Bill, in that it may place in the hands of those who have not had the training and experience of pharmaceutical chemists a number of powerful poisons which will in turn become easier of access to the public. It does not in the least follow that homicidal poisoning will increase, but there is real danger that the incidence of suicide and accidental poisoning may become more frequent.

Pharmaceutical Society of Great Britain

Examination Results

THE following are the results of the examination held in London during January:—

	No.	PRELIMINARY SCIENTIFIC				CHEMIST AND DRUGGIST QUALIFYING			
		Absent	Failed	Referred	Passed	Absent	Failed	Referred	Passed
Entered for Prelim. Sc. exam.	172	3	97	47	25	—	—	—	—
Referred subject in Prelim. Sc. exam.	114	1	—	34	79	—	—	—	—
Entered for C. and D. exam.	130	—	—	—	—	6	77	20	27
Referred subject in C. and D. exam.	67	—	—	—	—	—	—	20	47
	483	4	97	81	104	6	77	40	74

Candidates have been referred as follows:—In botany, 42; chemistry, 5; physics, 34; pharmacognosy, 8; pharmacy, 18; pharmaceutical chemistry, 13; forensic pharmacy, 1; total, 121.

Candidates have failed as follows:—In botany, 83; chemistry, 63; physics, 91; pharmacognosy, 59; pharmacy, 65; pharmaceutical chemistry, 61; forensic pharmacy, 38.

CHEMIST AND DRUGGIST QUALIFYING EXAMINATION.

The following, having satisfied the examiners in the Chemist and Druggist Qualifying examination, have been registered as chemists and druggists:—

Andrews, H. V., Clapton	Heale, J. W., Cardiff
Atkinson, H. H., Liverpool	Hodgson, E. C., Worcester
Balkwill, A. J., Swansea	Hudson, G., Whitby
Bergin, Francesca S. C., East Liss	Jenkins, Ruth A., Harborne
Brown, W. T., Goole	Jones, Gwyn, Neath
Burnell, C. H., Weston-super-Mare	Jones, J. E. L., Chwilog
Caunter, C. W. O., Shepherds Bush	King, Joan, Melksham
Clark, R. G., Grays	Marshall, H. W., New Cross
Cleverly, W. A., Melksham	Martin, N., Cardiff
Clifford, C. E., Brighton	Matthews, H. D. R., Rayleigh
Coates, F. G., Llanelly	Mattock, A. F., Leicester
Coleman, Jessie M., Bedford	Meyrick, P. J., Coventry
Collins, Kathleen M., Liverpool	Mills, A. G. E., Eastbourne
Cooper, A. J. B., Cosham	Morgan, J. H. L., Abercynon
Cooper, Irene A., St. Helens	Morton, Vesta, Harborne
Cureton, Beryl C., Liverpool	Newton, B. H. C., Hull
Davies, D. A., Lampeter	Nightingale, J. A., Chesterfield
Deer, T. A., Swansea	Owen, D., Clapham
Doig, R. G., Burntisland	Parker, T. M., Palmer's Green
Edwards, H. D., Aberystwyth	Pearson, H. W., Burnley
Egleton, Thora M., Finsbury Park	Peberdy, R. W., Leicester
Ellis, W. E., Appledore	Pembro, T. G. J., Cross Keys
Evans, B. R., Bridgend	Phelps, W. L., Mountain Ash
Evans, J. S., Llanelly	Robertson, A., Dunfermline
Freer, J. S., Leicester	Round, Alice G., West Bromwich
Gillibrand, G. E., Blackpool	Royley, J., Kearsley
Goodison, Annie, Stockport	Shaw, J. W. M., Grimsby
Green, J., St. Dogmaels	Shearn, W. W., Cross Keys
Haigh, M., Wincobank	Smith, A., Troon
Hall, H. H., Portsmouth	Starling, R. W., Ashford
Harries, D. O., Pontardawe	Stocker, H. W., Exmouth

Strange, J., Bolton
Sutton, D. W., Maidstone
Terry, J. T., Farnborough
Tingey, R., Balham
Valins, S. S., Everton
Wadsworth, Mary W., Halifax
Wakeham, C. N., Helston

Walden, Kathleen E., Chester
Walker, H., Dewsbury
Whittaker, Alice, Castleton
Williams, E. H., Carnarvon
Williams, Phylis, Llandudno

Branch Meetings

Bradford.—A talk on *The Leeds Apprenticeship Scheme* was given by Mr. G. C. Crummack (secretary of the Leeds Branch) to the Bradford Branch on January 10. Mr. Paul Dobson (chairman of the Leeds Branch) had promised to give the talk, but was unable to be present. The chairman (Mr. J. W. Thorp) presided. After Mr. Crummack had outlined the scheme, the chairman said that apparently Leeds had adopted the scheme with the idea of local supervision rather than national supervision. Mr. Crummack said the Leeds members had come to the decision that an apprenticeship scheme could be worked more satisfactorily locally. In reply to a suggestion that some members might not care for local supervision, Mr. Crummack said the member gave his word that he would carry out the necessary agreement. Mr. F. C. Wilson (secretary of the Bradford Branch) asked if the Leeds Branch had had any opposition from the education authorities. Mr. Crummack said the scheme was worked through a section of the Juvenile Employment Bureau. The Leeds Branch stipulated that only a certain type of boy or girl should be sent for interview. Mr. Wilson asked if the Leeds Branch made any stipulation as to premium. Mr. Crummack replied that the Leeds Branch did not recommend premiums. Mr. W. Sutcliffe said he had come to the conclusion that the idea of the scheme was to get a better type of boy into pharmacy. He did not think they were going to achieve their object by too much classification and organisation of the apprentice. Mr. Crummack said the Branch wanted to get a better type of boy into pharmacy. Mr. Wilson said he received many applications from boys for positions in pharmacy. In the majority of cases he found they were boys who wanted a job, and it did not matter what kind it was nor what trade it was. Mr. J. R. Cross said the Juvenile Employment Bureau in Bradford was not divided into sections, as appeared to be the case in Leeds, and it covered all schools. The Leeds scheme was a very good one, and he thought the Bradford Branch ought to adopt a similar plan.

Lancashire (N.E.).—A meeting of the North-East Lancashire Branch was held on January 12, Mr. Clifford Taylor in the chair. Mr. A. O. Bentley, Ph.C. (head of the School of Pharmacy, Nottingham), gave an address on *Practical Pharmacy for Pharmacists with Special Application to Apprentices*. Mr. Bentley remarked that in his opinion it would be impossible to secure legislation to restrict the business of the chemist and druggist to the qualified man until it could be shown that chemists themselves were actually engaged in skilled work of a kind which could not safely be left in the hands of persons who had not had their particular training. It paid to be interested in one's job, it paid to take a pride in one's professional work and in one's handicraft. Professional pride could not help but bring them the confidence of the public. It was interesting, said Mr. Bentley, to note that in South Africa, the Minister of Health had approved rules regarding the training of apprentices. Pharmacies were divided into two classes: (1) two or more pharmacists with 3,500 original scripts per annum were allowed two apprentices, with an interval of eighteen months between the respective indentures; and (2) one pharmacy with 1,500 scripts per annum had one apprentice allowed, a second starting three months before the first was due to leave. Pharmacies must also have adequate equipment for making certain listed preparations, and there were various other interesting conditions. Mr. Bentley suggested that apprentices should be recommended to observe the contents of bottles, and to start an exercise book.

Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

28 Essex Street, W.C.2, January 19

LITTLE of outstanding interest has transpired in the markets during the past week. Business in some products is, in the aggregate, fairly satisfactory, while in others, particularly crude drugs, the turnover is unusually small. The general tone is steady on spot, and shipment markets are well maintained. The pharmaceutical chemicals market has done fairly well, the demand for such products as bromides, salicylates and quinine salts being quite good. Phenacetin is unsteady. Phenazone is irregular. Phenolphthalein is nominal. A reduction in quinine salts on the rate of exchange is notified. Business in crude drugs has been poor in almost all directions, and a number of further slight declines in values are recorded. Agar-agar is again cheaper and still dull. Japanese camphor is neglected. Menthol shows a sharp break in the market, particularly in the shipment quotation; the market closes flat. Saffron is quoted lower. The essential oils market is keeping fairly steady and business on modest lines is being done. Bergamot for shipment seems to be a little steadier at current low figures. Cassia for shipment is at cheap prices. Java and Ceylon citronella have met with very little inquiry. New crop Sicilian hand-pressed lemon is not receiving much attention. West Indian lime continues at high figures and is firm, with supplies scarce. Most of the business in orange has been done in the French colonial product at slaughtered prices. Japanese peppermint has been neglected, quoted easier on the week and closing rather unsteady. In fixed oils business has been very limited. American turpentine is firm and substantially dearer. Linseed is dull, and palm oils have been slack, closing at cheaper prices. In the coal-tar section there is a steady call for limited quantities of carbolic acid crystals. Pitch is firm. Cresylic acid and creosote oil are in over-supply and easy as quoted.

Exchange Rates on London

THE following is a list of the chief Continental and other exchange rates at the opening on Thursday morning:—

Centre	Quoted	Par	January 19	Value of the £
Amsterdam ...	Fl. to £	12.107	8.34	13/9½
Berlin ...	Mks. to £	20.43	14½	13/9½
Brussels ...	Belga to £	35	24.19½	13/9½
Copenhagen ...	Kr. to £	18.159	20½	22/0½
Lisbon ...	Esc. to £	110	110	20/-
Madrid ...	Ptas. to £	25.22½	40½	32/5½
Milan ...	Lire to £	92.46	65½	14/2
Montreal ...	Dol. to £	4.86½	3.84½	15/10
New York ...	Dol. to £	4.86½	3.35	13/9
Oslo ...	Kr. to £	18.159	19½	21/5½
Paris ...	Fr. to £	124.21	85½	13/9½
Prague ...	Kr. to £	164.25	113	14/7
Stockholm ...	Kr. to £	18.159	18½	20/2½
Warsaw ...	Zloty to £	43.38	30	14/0½
Zurich ...	Fr. to £	25.2215	17½	13/10

Bank rate 2 per cent.

Pharmaceutical Chemicals, etc.

BUSINESS has been on a rather better scale this week, with some items meeting with a good demand. Salicylates, bromides, quinine sulphate, which is cheaper with the better exchange, and aspirin have been moving well. Phenacetin remains irregular, with cheap offers.

ACETANILID.—Business is rather quiet, with the market keeping steady; B.P. crystals and powder, 1s. 5½d. to 1s. 8d. per lb., as to quantity.

AMIDOL.—Market is unchanged, with a small business passing; 56 lb., 7s., 28 lb., 7s. 6d.; 14 lb., 7s. 11d. per lb., in 7 lb. tins.

AMIDOPYRIN.—Dealers' prices are about level on the week, business quiet; crystals, five cwt., 18s. 2d.; two cwt., 18s. 5d.; less than two cwt., up to 19s. 6d. per lb., with powder 2½d. per lb. extra.

AMMONIUM BENZOATE.—Occasional business, with dealers quoting from 3s. 4d. to 3s. 6d. per lb.

AMMONIUM ICHTHOSULPHONATE.—The market continues steady, business limited; one cwt., 1s. 6½d. in 14 lb. tins; 1s. 8d. in 1 lb. tins; 1s. 10d. in 8 oz. tins, and 2s. per lb. in 4 oz. tins.

ASPIRIN.—The demand continues quite good, with makers' and dealers' prices level, market steady; home trade: ten cwt., 2s. 9d.; five cwt., 2s. 10d.; one cwt., 2s. 10½d.; 28 lb., 2s. 11d.; 14 lb., 3s.; 7 lb., 3s. 2d. per lb. Export to Colonies and British Possessions: ten cwt., 2s. 9d.; five cwt., 2s. 10d.; one cwt., 2s. 10½d. per lb., f.o.b.; less than one cwt., 2s. 11d. per lb., ex works.

BARBITONE.—Spot values are steadier this week, some small business being done; spot, one cwt., 11s.; 56 lb., 11s. 3d.; 14 lb., 11s. 8d.; small parcels, up to 12s. 4d. per lb.

BENZOIC ACID (B.P.).—Market is steady and business fair; quantities, ex works, 9½d.; spot parcels, 1s. 10d. to 2s. 1d. per lb., ex store, as to quantity.

BISMUTH SALTS.—Makers' prices for these salts continue at the reductions notified last week.

BROMIDES.—A fair business is being done with makers' and dealers' prices steady; ammonium, not less than five cwt., 1s. 9d.; one cwt., 1s. 10d.; smaller quantities, 2s. 1d. per lb.; potassium B.P. crystals and granular, not less than five cwt., 1s. 6d.; one cwt., 1s. 7d.; smaller quantities, 1s. 10d. per lb.; sodium B.P., not less than five cwt., 1s. 8d.; one cwt., 1s. 9d.; smaller quantities, 2s. per lb. net, without engagement. Special prices for larger quantities.

BUTYL CHLORAL HYDRATE is rather quiet, with quoted prices unchanged; spot, 14 lb., 8s.; 7 lb., 8s. 3d.; 1 lb., 8s. 6d. per lb., in 1 lb. bottles.

CAFFEINE.—The limited business passing is being done at keen prices; pure alkaloid, 5s. 6d. to 6s. per lb.; citrate, 4s. 3d. to 4s. 10d. per lb., as to quantity.

CALCIUM LACTATE.—A small business is being done at about former figures; spot, one cwt., 1s. 1½d.; 56 lb., 1s. 2d.; 28 lb., 1s. 3d.; smaller quantities, up to 1s. 6d. per lb.

CHLORAL HYDRATE.—Makers' prices are steady; duty-paid crystals, in 14 lb. free containers, five cwt., 3s. 4d.; one cwt., 3s. 5d.; 56 lb., 3s. 6d.; 28 lb., 3s. 7d.; 14 lb., 3s. 8d. per lb.; 28 lb. jars one penny per lb. extra.

CHLOROFORM.—Makers' prices for home trade are as follows:—In drums, 2s. 3d. to 2s. 6d.; winchesters, 2s. 3½d. to 2s. 6½d.; 2 lb. bottles, 2s. 4½d. to 2s. 7½d.; 1 lb. bottles, 2s. 5½d. to 2s. 8½d.; 8 oz. bottles, 2s. 6½d. to 2s. 9½d.; 4 oz. bottles, 2s. 8½d. to 2s. 11d. per lb.; for 10 cwt. down to 56 lb. lots, carriage paid on minimum cwt. lots.

CITRATES.—Home makers' prices are as follows:—

	Under 4 lbs.	4 lbs. and under 7 lbs.	7 lbs. and under 14 lbs.	14 lbs. and under 28 lbs.
Ferri et ammon. cit., B.P. (brown) ...	2 5	2 3	2' 1	1 11
Potass. citras, B.P. ...	2 3	2 1	1 11	1 9
Sodii citras, B.P.C., 1911 ...	2 0	1 10	1 8	1 6
Sodii citras, B.P.C., 1923 ...	2 4	2 2	2 0	1 10

28 lb., 3d. per lb. less. Special prices for bulk quantities.

CITRIC ACID (B.P. CRYSTALS).—British makers quote for home consumption at 9½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers are offering at keen prices.

CREAM OF TARTAR.—Business continues on moderate lines, with the home makers' quoted price for 99 to 100 per cent. reduced this week to 85s. per cwt., less 2½ per cent. discount,

nominal and without engagement. Dealers are offering at about the same figure.

CREOSOTE (B.P.).—Quantities in demijohns are quoted down to 1s. 11d. per lb.; smaller parcels, up to 2s. 4d. per lb.

GUAIACOL CARBONATE.—Material to come forward would cost about 9s. 3d. per lb. in cwt. lots. Some spot offers would be at rather cheaper prices.

HEXAMINE.—A fair amount of inquiry is being received, and there is competition for any large orders; free running crystals, spot, ten cwt., 2s. 2½d.; two cwt., 2s. 4d.; one cwt., 2s. 4½d.; smaller quantities, up to 2s. 6d. per lb.

HYDROQUINONE.—The market is steady at the higher figures now being quoted; ten cwt., 5s. 7½d.; five cwt., 5s. 8½d.; two cwt., 5s. 9d.; one cwt., 5s. 9½d.; 56 lb., 5s. 10½d.; 28 lb., 6s. 0½d.; 14 lb., 6s. 2½d.; 7 lb., 6s. 4½d. per lb., carriage paid.

IODIDES.—Makers' prices continue steady at the reductions recorded last week.

LACTIC ACID (B.P.).—A fair business is being done on a competitive market; quantities in carboys, 1s. 5d. to 1s. 6d.; in winchesters, 1s. 8d. to 1s. 9d. per lb., as to quantities.

METHYL SALICYLATE (B.P.).—This market is firmer, and a slight advance in the scale of prices would not be surprising; business has been good; one ton and over, 1s. 4½d.; ten cwt., 1s. 5d.; five cwt., 1s. 5½d.; one cwt., 1s. 6d.; less than 1 cwt., 1s. 6½d.; small quantities in bottles, up to 2s. per lb.

METHYL SULPHONAL.—Spot is rather quiet, but prices are steadily maintained; two cwt., 20s.; one cwt., 20s. 9d.; 56 lb., 21s. 4d.; small parcels, 22s. per lb.

METOL.—Market continues quite steady; 56 lb., 9s. 3d.; 28 lb., 9s. 6d.; 14 lb., 9s. 9d.; 7 lb., 10s. 9d. per lb. in tins, bottles extra. Wholesale distributors' prices for smaller quantities at higher prices.

MILK SUGAR.—Business has been fair, and the market is steady as quoted for Continental; one ton, 53s.; ten cwt., 54s. 6d.; two cwt., 56s. per cwt., in two-cwt. cases.

MOLYBDATES.—Makers' prices are as follows:—Molybdic acid, 28 lb., 5s. 3d.; 7 lb., 5s. 6d.; smaller quantities, 5s. 9d. per lb.; ammonium molybdate, 28 lb., 5s.; 7 lb., 5s. 3d.; smaller quantities, 5s. 6d. per lb. net, packages extra. Special prices for contracts and bulk quantities.

MUSK XYLOL.—Prices have been advanced with the basic figure 8s. per lb., with bonus as to quantity. Ketone is dearer at 33s. per lb., and ambrette at 30s. per lb. The new scales of bonuses are as follows: Xylol, two cwt., 2½ per cent.; five cwt., 5 per cent.; ten cwt., 7½ per cent.; one ton, 10 per cent. Ambrette and ketone, one cwt., 2½ per cent.; two cwt., 5 per cent.; five cwt., 7½ per cent.; ten cwt., 10 per cent.

PARAFORMALDEHYDE.—The market is rather dull but steady; 100 per cent. powder, quantities in kegs, 1s. 2½d. to 1s. 3½d.; smaller parcels up to 1s. 7d. per lb.

PARALDEHYDE.—Business is not of much account; quoted unchanged; quantities in demijohns, 1s. to 1s. 1d.; winchesters, 1s. 3d. per lb.; higher prices for small quantities.

PHENACETIN.—Conditions in this market are still unsettled, with the quoted figures unchanged; crystals or powder, ten cwt., 4s. 6d.; five cwt., 4s. 7½d.; two cwt., 4s. 8½d.; and less, up to 5s. per lb.

PHENAZONE.—Spot varies to some extent on quotation; business is rather limited; crystals, ten cwt., 9s. 11d.; five cwt., 10s. 2d.; two cwt., 10s. 4d.; and less, up to 11s. per lb.; with powder 2½d. per lb. extra.

PHENOLPHTHALEIN.—Makers' prices are nominal and unchanged.

PHENYL ETHYL BARBITURIC.—The market continues steady at the reduction recorded last week; one cwt., 36s. 9d.; 56 lb., 38s.; 28 lb., 39s. 3d.; smaller quantities, 40s. 6d. per lb., in 2 lb. bottles, carriage paid; small lots in different packing at higher prices.

POTASSIUM PERMANGANATE (B.P.).—Dealers are doing a fair business in small lots, market steady; quantities in two-cwt. drums, 8½d. to 9d.; druggists' parcels, 9½d. to 10d. per lb., as to quantities.

POTASSIUM SULPHOGUAIACOLATE.—Continental prices have advanced and to come forward would cost 6s. to 6s. 3d. per lb. There are cheaper spot sellers.

PYROGALLIC ACID.—Makers' prices are as follows: 56 lb., 7s.; 28 lb., 7s. 3d.; 14 lb., 7s. 9d.; 7 lb., 8s. 6d.; per lb., in 7-lb. tins.

QUININE SULPHATE.—Convention prices have been reduced with the improvement in sterling exchange rates to 2s. 5d.

per oz., carriage paid on bulk quantities. Other salts have been reduced accordingly.

RESORCIN.—Makers' and dealers' prices are steady; fair inquiry on the market: crystals, one cwt., 4s. 11d.; 56 lb., 5s.; 28 lb., 5s. 1d.; 14 lb., 5s. 3d.; 7 lb., 5s. 6d.; less than 7 lb., 6s. per lb., with powder 3d. per lb. extra.

ROCHELLE SALTS.—Makers' scale of prices for sodium and potassium tartrates and Seidlitz powder, for home trade, are steady as follows: powder, five cwt. and over, 77s. 6d.; less than five cwt., 80s.; less than one cwt., 82s. 6d. per cwt.; carriage paid, with crystals 2s. 6d. per cwt. extra. Pulv. seidlitz, five cwt. or over, 62s. 6d.; less than five cwt., 64s. 3d.; less than one cwt., 66s. 3d.; double seidlitz, five cwt. or over, 69s.; less than five cwt., 71s. 3d.; less than one cwt., 73s. 3d. per cwt., carriage paid. Quoted without engagement.

SALICYLIC ACID (B.P.).—Home makers' prices are firm: one ton, 1s. 7d.; ten cwt., 1s. 7½d.; five cwt., 1s. 8d.; one cwt., 1s. 8½d.; 28 lb., 1s. 9d.; 14 lb., 1s. 10d.; 7 lb., 2s. per lb.; higher prices for smaller quantities.

SALOL.—A moderate demand is being met with the market about steady: spot, crystals, two cwt., 5s. 9d.; one cwt., 5s. 11d.; 56 lb., 6s.; smaller parcels, up to 6s. 1½d. per lb.; powder, 2½d. per lb. extra.

SANTONIN.—The controlled scale of prices are as follows:—
Not less than 50 kilog. .. 125 American dollars per kilog.
Not less than 25 kilog. .. 130 American dollars per kilog.
Not less than 10 kilog. .. 137 American dollars per kilog.
Not less than 5 kilog. .. 147 American dollars per kilog.
Not less than 3 kilog. .. 152 American dollars per kilog.
Not less than 1 kilog. .. 162 American dollars per kilog.

Carriage paid, packages free, net cash thirty days. Higher prices for smaller quantities, packages extra. Quotations are only made in American dollars.

SODIUM BENZOATE (B.P.).—A fair business is being done at competitive prices. Ton lots would be about 1s. 8d., and up to 1s. 10d. per lb. for smaller quantities.

SODIUM DIETHYLBARBITURATE.—The market is steady: spot, one cwt., 12s. 9d.; 56 lb., 13s.; 28 lb., 13s. 3d.; 14 lb., 13s. 6d.; 7 lb., 13s. 9d.; smaller parcels, up to 14s. per lb.

SODIUM SALICYLATE (B.P.).—Makers' and dealers' prices are very steady and a satisfactory volume of business continues to be done: home trade, powder, two tons, 2s.; one ton, 2s. 0½d.; ten cwt., 2s. 1d.; five cwt., 2s. 2d.; one cwt., 2s. 3d.; 28 lb., 2s. 4d.; 14 lb., 2s. 6d.; 7 lb., 2s. 7d.; 1 lb., 2s. 8d. per lb., with crystals one penny per lb. extra.

STRYCHNINE SALTS.—Makers' prices are as follows:—

	Under 16 ozs.		
	16 ozs.	16 ozs.	35 ozs.
Alkaloid cryst. ...	Per oz. 2/10	Per oz. 2/8	Per oz. 2/7
Alkaloid precip. ...	2/8½	2/6½	2/6
Arseniate ...	2/9	2/7½	2/6½
Bisulphate ...	2/3½	2/1½	2/1
Hydrochloride ...	2/6½	2/5	2/4
Hypophosphite ...	4/11½	4/9½	4/9
Nitrate cryst. ...	2/5	2/3	2/2½
Phosphate ...	3/3	3/1	3/0½
Sulphate cryst. ...	2/6	2/4	2/3½
Sulphate powder ...	2/4½	2/2½	2/2

25-oz. tins free. Lower prices for contracts, with rise and fall clause.

SULPHONAL.—The market is about steady, business is limited: crystals, two cwt., 16s. 2d.; one cwt., 16s. 8d.; 56 lb., 17s.; smaller parcels, up to 18s. per lb., with powder 2½d. per lb. extra.

TARTARIC ACID (B.P. CRYSTALS).—British makers' quoted price for home trade is unchanged at 10½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers are offering at about the same figure.

THEOBROMINE.—Market is still competitive, business small: pure alkaloid, 5s. to 5s. 6d. per lb.; sodium salicylate, 4s. 9d. to 5s. per lb.; as to quantity.

THYMOL.—Business is small and the market is none too steady: synthetic, fine white, one cwt., 5s. 6d.; 56 lb., 5s. 7½d.; 28 lb., 5s. 9d.; 14 lb., 6s. per lb.; ex ajowan seed, one cwt., 7s. 3d.; 56 lb., 7s. 4½d.; 28 lb., 7s. 6d.; 14 lb., 7s. 9d. per lb.

VANILLIN.—Rather more inquiry, with quoted prices fairly steady: 100 per cent., one ton, 14s. 3d.; ten cwt., 14s. 6d.; five cwt., 14s. 9d.; three cwt., 15s.; one cwt., 15s. 3d.; 56 lb., 15s. 6d.; 28 lb., 15s. 9d.; 14 lb., 16s.; less, 16s. 3d. per lb.

Crude Drugs, etc.

PARTICULARS of the drug auction are given at the end of the Trade Report.

ACONITE ROOT.—Napellus is quoted on spot at 67s. 6d. and Japanese at 57s. 6d. per cwt.

AGAR AGAR.—The market is again easier, and business is still very poor: spot, Kobe No. 1, 2s. 4½d.; No. 2, 2s. 3d.; Yokohama No. 1, 2s. 3d. per lb.; shipment, Kobe No. 1, 1s. 9½d.; No. 2, 1s. 7½d.; Yokohama No. 1, 1s. 7½d. per lb. c.i.f.

ANTIMONY.—Market continues steady as quoted. Chinese oxide, spot, £27; shipment, £22 10s. c.i.f. Chinese crude, spot, £19 10s.; shipment, £17 10s. c.i.f.

ARNICA FLOWERS.—Spot supplies of Montana are available at 8½d. per lb.

BURDOCK ROOT.—Dealers are offering spot at about 45s. per cwt.

CAMPHOR.—There has been very little inquiry on the market and the tone is rather unsteady: spot, slabs, 2s. 3d.; flowers, 2s. 3d.; tablets, 2s. 9d. per lb.; shipment, slabs, 1s. 10½d.; flowers, 1s. 10½d.; tablets, 2s. 2d. per lb. c.i.f. English refined is quoted unchanged: flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots, 3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz. and 16 oz., 3s. 4d.; 1 oz. and 2 oz. 3s. 5d.; ½ oz., ½ oz. and ¼ oz., 3s. 6d. per lb.; special prices for contracts for quantities.

CLOVES.—Prices quoted show no change on the week, and the market remains quiet. Zanzibar, spot, 6½d.; shipment, January-March, 5½d. per lb. c.i.f.; Madagascar, spot, 6½d. per lb.

The landings of Zanzibar in London during the week ended January 7 were *nil* and the deliveries 5, leaving a stock of 1,169. From January 1 to date landings of Zanzibar have been *nil* and the deliveries 5. Landings of Madagascar for the week ended January 7 were *nil* and the deliveries 22, leaving a stock of 1,134. Landings of Madagascar this year to date have been *nil* and the deliveries 22.

COCOA BUTTER.—Prime English is quoted from 9½d. to 10½d. per lb., as to quantity.

COCONUT (DESICCATED).—The market is quoted dearer and is steady. Spot, fine, 28s.; medium, 25s. 6d. per cwt.; shipment, halves, January-February, 24s. 3d. per cwt. c.i.f.

COD-LIVER OIL.—There is not much business moving, but the market is quoted steadily with finest Lofoten steam refined non-freezing medicinal oil at 94s. per barrel c.i.f. Spot is at about 110s. per barrel, ex store, duty paid. Some brands may be cheaper.

DAMIANA LEAVES.—Spot supplies are available at about 1s. 1d. per lb.

DIGITALIS LEAVES.—Dealers are quoting spot supplies at 62s. 6d. per cwt.

GELATIN.—A moderate business is being done, with quoted prices unchanged: spot, gold leaf, 2s. 2d.; silver leaf, 2s.; bronze leaf, 1s. 9d.; thin leaf, 1s. 8d. per lb., in cwt. lots.

GENTIAN.—The market is very steady, with supplies limited. Whole root, 55s.; cut root, 65s. per cwt., spot.

GINGER.—The market is steady on the week, and business is quiet. West African, spot, 20s.; for arrival, 17s. (d. 100) cwt. c.i.f.

HENBANE.—Business has been slow; spot is quoted at about 40s. per cwt.

HYDRASIS.—Dealers are offering spot at about 4s. 6d. per lb.; market steady but quiet.

LYCOPodium.—Dealers are offering spot supplies at 3s. 4d. per kilo.

MANNA.—Selected bold flake in 1 lb. tins is available at 3s. 6d. per lb.

MENIHO.—Further weakness is recorded here, with values substantially lower; business slack. K/S brands, spot, 17s. 7½d., and slightly less for bulk quantities; shipment, October-December, 14s. 9d.; January-March, 14s. 9d. per lb. c.i.f. More inquiry at the close.

MERCURY.—The shipment quotation for Spanish-Italian continues at 35 dollars per bottle, f.o.b. Continental port, with spot at 36 dollars, ex store.

OPium.—The market is unchanged, with a moderate inquiry being received. Quoted at 1s. 2d. per unit, landed and duty paid.

PEPPER.—The market is slightly easier this week and business is limited. Lampong, spot, 6d.; shipment, January-March, 4½d. March-May, 4½d. c.i.f. Tellicherry, spot, 6½d.; shipment, January-March, 44s. c.i.f. Aleppy, spot, 6d.; shipment, January-March, 43s. 6d. c.i.f. White Muntok, spot, 6½d.; shipment, January-March, 5½d.; March-May, 5½d. per lb. c.i.f.

PIMENTO.—Market is quoted fractionally cheaper on the week; business dull. Spot, 3½d. per lb.; shipment, January-March, 24s. 9d. per cwt. c.i.f.

RUBBER.—The market has been quiet and is easier on the week. U.K. stocks total 90,311 tons, against 91,121 tons the previous week and 126,934 tons a year ago. Standard ribbed smoked sheet, spot, 2½d.; January, 2½d.; February, 2½d.; March, 2½d.; April-June, 2½d.; July-September, 2½d.; October-December, 2½d.

SAFFRON.—A small business is being done, with quoted prices easier; spot, prime B.P., 61s. 6d.; extra B.P., 57s. 6d.; super B.P., 54s. 6d. per lb., and slightly less for bulk quantities.

SEEDS.—ANISE.—Spanish, 53s.; Bulgarian, 35s.; and Levant all cleared. CANARY.—Market lower; Mazagan, 12s., spot; 10s. would be cable for shipment; Tangier 11s. spot, and Kenitra 10s. 6d. LINSEED.—Mazagan, spot, 15s. 6d. A parcel of country damaged offering at 14s.; no Morocco offering. CORIANDER.—Morocco, 1929, unchanged at 16s. spot. Wormy, 13s. 6d. to 14s. 6d. CUMIN.—Malta sold at 35s. spot. Morocco firm at 33s. spot and 31s. c.i.f. for shipment. FENUGREEK.—Morocco quoted at 12s. 6d. on spot. CARAWAY.—Dutch, 33s. 6d., duty paid. MUSTARD.—English, 24s. to 32s., according to quality.

SHELLAC.—The market has been rather dull, but values are maintained. Spot, standard TN orange, 55s.; fine orange, 65s. to 127s. 6d.; pure button, 70s.; for delivery TN, March, 47s.; May, 48s.; for arrival, TN, January-February, 45s. per cwt. c.i.f.

STRAMONIUM LEAVES.—Good green leaves on spot are quoted at about 47s. 6d. per cwt.

TUBA ROOT.—There is a fair inquiry for this article; quoted at about 9d. per lb. for whole root in quantities.

VALERIAN ROOT.—Dealers are now offering new crop at about 65s. per cwt., spot.

WAX (VARIOUS).—The markets are rather quiet, and some values are slightly easier. CARNAUBA, fatty grey and chalky grey, is easier at 85s.; medium yellow is steady at 140s.; fine yellow is unchanged at 155s. CANDELLA steady at 75s. per cwt. SPERMACEI steady at 9½d. per lb. spot. PARAFFIN is about steady at 22s. 6d. to 50s. per cwt. as to melting point. CERESIN is quoted from 35s. to 80s. per cwt. as to colour and melting point. BRES' has been meeting with a limited demand; bleached, discs, £7 10s.; slabs, £7 2s. 6d.; yellow refined is very steady at £5 15s.; yellow crude, 97s. 6d. per cwt. spot.

Essential Oils, etc.

MOST of the products in this market have been in steady but limited demand and the general tone is unchanged. Japanese peppermint has weakened and is dull. Sicilian lemon and orange, new crop, seem of small interest. Values of a number of oils are well held, with stocks at a low level.

ALMOND.—English sweet almond is firm at makers' prices of 2s. 7d. for cwt. lots and up to 2s. 9d. per lb. for small quantities.

ANISE (STAR).—The market is very flat and quoted about unchanged: spot, "Red Ship," in leads, 1s. 8d.; in tins, 1s. 7½d.; in drums, 1s. 7d.; shipment, in leads, 1s. 7½d.; in tins, 1s. 6½d.; in drums, 1s. 6d. per lb., c.i.f.

BERGAMOT.—In some quarters the shipment market is reported steadier, while there are still some quotations that are a shade under 6s. per lb. c.i.f. for bulk quantities. Spot in fair quantities is at about 6s. 6d. to 6s. 9d. per lb.

BOIS DE ROSE.—Spot holders of Brazilian are keeping their price at 5s. 6d. per lb., with supplies limited. Cayenne is not on the market in any quantity.

CAJUPUT.—Dealers are quoting from about 2s. 6d. to 2s. 7d. per lb., as to quantity.

CANANGA.—The recent higher prices are being more or less maintained in the region of 9s. 6d. to 9s. 9d. per lb. Supplies are short.

CARAWAY.—Continental twice-rectified is being quoted at about 7s. 6d. per lb., with an occasional seller at less for quantities.

CASSIA.—The shipment market remains weak, with offers at about 2s. 10½d. per lb. c.i.f. Spot is at about 3s. 8d., with business quiet.

CEDARWOOD.—This market is unchanged and some moderate business is reported. Colonial, spot, 1s. 8½d. in drums and 1s. 9½d. per lb., in tins. American, spot, about 1s. 10½d. in drums, with smaller quantities up to 2s. 1d.; shipment, 1s. 8½d. per lb. c.i.f.

CINNAMON LEAF.—Dealers are offering spot at about 3s. 2d. per lb., with shipment quoted at about 2s. 4d. per lb. c.i.f.

CITRONELLA.—Business in this market has remained distinctly quiet and spot is inclined to be rather easy as quoted. Ceylon, spot, 2s. 1d., and less for quantities; shipment, 1s. 10½d. per lb. c.i.f. Java, spot, 2s. 10½d. to 3s. as to quantity; shipment, 2s. 6½d. per lb. c.i.f.

CLOVE.—The shipment market for Madagascar is rather easier at about 3s. per lb. c.i.f.; spot is about 3s. 8d. to 3s. 9d. per lb. English oil is quoted at about 4s. 3d. to 4s. 9d. per lb., as to quantity.

EUCALYPTUS.—Business has been somewhat quieter. Australian, 70 to 75 per cent., about 1s.; 80 to 85 per cent., about 1s. 1d. per lb., and a shade less for bulk quantities. Spanish, 70 to 75 per cent., 1s. 2d. per lb.

GERANIUM.—Reports from origin state business is good, with Bourbon quoted for shipment at 21s. 4d. per lb. c.i.f. Spot is at about 23s., with some sellers at less. Algerian is in small supply on spot and is steadier at 23s. 6d. per lb.; shipment offers are being restricted.

GINGERGRASS.—Dealers are quoting spot at about 7s. 8d. to 7s. 10d. per lb., as to quantity.

JUNIPER BERRY.—The market is now quoted at about 4s. to 4s. 2d. per lb. Business poor and values rather unsteady.

LAVENDER.—There is no change in the quoted prices of the best brands of new French crop, but most of the limited business moving is being done at lower figures: 50 to 52 per cent., 10s. 6d. to 10s. 9d.; 40 to 42 per cent., 9s. 3d. to 9s. 6d.; 38 to 40 per cent., 8s. 9d. to 9s.; 36 to 38 per cent., 8s. 3d. to 8s. 6d.; 30 to 32 per cent., 7s. 6d. to 7s. 9d. per lb., delivered, and slightly less for bulk quantities.

LEMON.—Inquiry for shipment of new crop Sicilian hand-pressed is slow, with prices ranging from about 4s. to 4s. 9d. per lb. c.i.f., as to brand and quantity. Spot is of little interest, and quoted at about 4s. 2d. to 5s. 3d. per lb. Californian, in large drums, 48 cents; in small drums, 49 cents per lb.

LEMONGRASS.—Dealers are offering spot at about 2s. 3d. to 2s. 4½d. per lb., as to quantity; shipment, about 2s. 2d. per lb., c.i.f.

LIME.—This market continues firm, and good inquiry is being received. Spot, 38s. 6d. to 39s. per lb. for West Indian.

MANDARIN.—Very little business in this article, with spot at about 16s. per lb. for small lots.

ORANGE.—A fair amount of good-sized business is reported, with most of it done in the French Colonial oil, which is now quoted at not more than 2s. 10½d. per lb. c.i.f. for minimum ton lots. Sicilian sweet, new crop, is offered for shipment at 5s. 4d. to 5s. 9d. per lb. c.i.f., as to brand. Spot is at about 6s. to 6s. 6d. per lb. Californian is steady at the recent reduction to 50 cents per lb. for single cases and 45 cents for two or more cases.

PALMAROSA.—Business seems to have been of small account, with spot in the region of 8s. 3d. per lb.

PATCHOULI.—Spot supplies would be available from 8s. 6d. to 8s. 8d. per lb.; shipment, 8s. 2d. per lb. c.i.f.

PEPPERMINT.—The market dealing in Japanese dementholised has been particularly dull and values are easier and none too steady. On spot, about 6s. 3d.; afloat, 6s. 1½d., and January-March, 6s. 1½d. per lb. c.i.f. The American natural oil is keeping very steady, according to reports, with the shipment quotation at one dollar 90 cents per lb. c.i.f.

PETITGRAIN.—With rather small spot supplies most holders are not selling much under 5s. to 5s. 2d. per lb.

ROSEMARY.—This market is rather cheaper, with spot at about 1s. 10d. to 1s. 11d. per lb., as to quantity.

SANDALWOOD.—Genuine East Indian is quoted at 24s. to 25s. per lb., as to number of cases.

SASSAFRAS.—Dealers are offering fair quantities at about 4s. to 4s. 6d. per lb.; business quiet.

SPEARMINT.—Slightly lower prices are now being mentioned on spot at about 7s. 6d. to 7s. 9d. per lb., as to quantity.

SPIKE meets with occasional business, with Spanish quoted on spot at 3s. 2½d. to 3s. 4d. per lb., as to quantity.

WINTERGREEN.—Spot holders are quoting at about 7s. to 7s. 6d. per lb., as to quantity.

WORMSEED.—Dealers are now offering spot at about 13s. 3d. to 13s. 6d., and shipment is quoted in the region of 12s. per lb. c.i.f.

The following quotations are current for synthetics, etc.: Acetophene, 6s. 3d. to 6s. 6d. per lb.; amyl acetate, pure, 125s. per cwt.; technical, 115s. per cwt.; amyl salicylate, 2s. 2d. per lb., in cwt. lots; aubepine, ex para cresol, is steady at 8s. 3d. to 9s. per lb.; benzaldehyde, f.f.c., 2s. 1d. to 2s. 6d. per lb.; benzyl acetate, f.f.c. 1s. 6d. to 1s. 10d. per lb.; benzyl alcohol is steady at 1s. 11d. to 2s. 3d. per lb.;

bromstyrol, 100 per cent., is holding steady at 11s. 4d. to 11s. 6d. per lb.; butyric acid, 3s. 3d. to 3s. 6d. per lb.; citral, chemically pure, 8s. to 8s. 6d.; coumarin, 13s. to 14s. per lb.; ethyl phthalate, 2s. 8d. to 2s. 9d. per lb.; eugenol, 7s. 10d. to 8s. 6d. per lb.; geraniol, ex palmarosa, 10s. to 18s. per lb.; heliotropin, 100 per cent. crystals, is now quoted at 5s. 4d. to 6s. per lb., as to quantity; iso eugenol is unchanged at 10s. to 10s. 6d. per lb.; methyl anthranilate, 6s. 6d. to 7s. 6d. per lb.; mirbane, 8½d. to 10d. per lb.; musk ketone, 33s. per lb., with bonus for quantities; phenyl ethyl alcohol, 8s. to 8s. 9d. per lb.; safrol is steadier at 1s. 8d. to 2s. per lb.

Coal Tar Products, etc.

INTEREST in this market is restricted to a few products. Carbolic acid crystals continue very steady and in good demand. Pitch is short and firm. Creosote oil and cresylic acid are easy, owing to heavy stocks. BENZOL.—The market is steady, and business is moving on a fair scale; standard motor 90's, 1s. 6½d. to 1s. 7½d. per gallon, in tank wagons, ex works; pure, 1s. 11d. to 2s. per gallon. CARBOLIC ACID CRYSTALS (39° to 40° C.).—Supplies are not quite so tight, but prices for small quantities of a few cwt. continue at about 9d. per lb. in drums with over-casks, carriage paid. CRESYLIC ACID.—The market is irregular, with ample supplies and not much demand; pale 99 to 100 per cent., 1s. 3d. to 1s. 4d.; dark 95 per cent., 11d.; special qualities, 2s. 2d. to 2s. 4d. per gallon, ex works. AMERICAN DUTY-FREE ACID, 1s. 2d. to 1s. 5d. per gallon f.o.b. CREOSOTE OIL.—Supplies are very free, and the market tends to be rather easy as quoted at 4d. to 4½d. per gallon, for bulk quantities, f.o.r. works, South England. KEROSENE.—The market continues unchanged on quotation; water white, 11½d.; standard white, 10½d. per gallon, in barrels, ex wharf, London; in bulk, 3d. per gallon less. MOTOR SPIRIT.—National distributors' prices are as follows:—No. 1, 1s. 6½d. per gallon, delivered in bulk for England, Wales and South Scotland; 1s. 7d. for Belfast and 1s. 7½d. for remainder of Northern Ireland and North Scotland; 1s. 3½d. for Irish Free State, with Dublin 1s. 2½d. per gallon. No. 3 spirit 2d. per gallon less, and aviation spirit 4d. per gallon more in all cases. 1d. to 2d. per gallon more in two-gallon tins, as to district. PRICH.—Market continues firm, with available supplies limited; quoted from 97s. 6d. to 100s. per ton, f.o.b. East Coast. SOLVENT NAPHTHAS.—A fair demand with the market about steady; 90 to 160, 1s. 4d. to 1s. 5d.; heavy, 90 to 190, 1s. to 1s. 1d. per gallon, naked at works.—TOLUOL.—Business is fair, with the market keeping steady; commercial 90's, 1s. 11d. to 2s. 3d.; pure, 2s. 3d. to 2s. 6d. per gallon, ex works, London. XYLOL.—Market is about steady, with business quiet; commercial, 1s. 11d. to 2s. 1d.; pure, 2s. to 2s. 4d. per gallon, ex works, London.

Fixed Oils, etc.

BUSINESS has remained rather quiet in most products. Palm oils have been dull and are quoted easier. Linseed (raw, naked) is dull. American turpentine is firm at higher figures. ACID OILS.—Market is about steady, but business has been slow: coconut and/or palm kernel, 21s. 3d.; groundnut 19s. 3d.; soya, 14s. 6d. spot. CASTOR.—The market is quoted at lower figures; business limited: pharmaceutical, 40s. 6d.; first pressings, 35s. 6d.; second pressings, 32s. 6d. (barrels); cases £4 per ton extra ex mills, Hull, in not less than one ton lots. COCONUT.—Business has been fair, market about steady: deodorised, 30s. 3d. (barrels), spot; Ceylon, 23s. (drums) c.i.f. COTTON.—Quoted prices are about unchanged, business has been small: deodorised, 30s. 6d.; common edible, 28s. 6d.; soapmaking, 27s. 6d.; crude, 26s. (barrels), spot. GROUNDNUT.—Rather unsteady with the market dull: deodorised, 30s. (barrels), spot; crude Oriental, 31s. (drums), c.i.f. LINSEED (raw, naked).—The market has been quiet, but values are steady: on spot, 18s. ex mill; January, 16s. 6d.; January-April, 17s. 4½d.; May-August, 18s. 7½d.; September-December, 19s. 6d. per cwt. Boiled oil, spot, 20s. 6d. OLIVE.—A moderate business is being done with the market keeping steady: edible, in tins in cases, 8s.; in drums, 5s. 6d.; B.P., 4s. 3d. per gallon, in 40 gallon barrels. PALM.—Values for all grades are slightly cheaper and business has been disappointing: Lagos, 16s. 6d.; softs, 15s. 6d.; mediums, 15s.; hards, 16s. 9d.; bleached, 19s. 6d., spot. PALM KERNEL.—The market is quoted cheaper: deodorised, 28s. 3d.; crude, 23s. 6d., spot. RAPE.—A limited business being done with the market about steady: refined, 33s.; crude, 31s., spot. RESIN.—Business has been poor, market fairly steady: B., 13s. 3d.; D., 13s. 9d.; F.G., 15s. 3d.; N., 20s. 3d.; W.G., 22s.; W.W., 24s. 6d. per cwt., ex wharf. SOYA.—Rather cheaper on quotation on a quiet market: deodorised, 28s. 3d.; crude, 25s. 6d., spot. TURPENTINE, AMERICAN.—Market is firm at higher prices. Total London stocks, 19,907 barrels. On spot, 66s. 9d. WOOD.—Hankow in barrels on spot is now quoted at the cheaper figure of 49s.

London Drug Auction

Commercial Sale Rooms,
Mincing Lane, E.C.3.

January 19.

At the Drug Auctions held to-day—the opening sales of the year—there was a very moderate supply of drugs offered by nine brokers. The demand throughout was rather slow, but some progress was made. Rhubarb was dearer for Shensi, of which the stocks are much reduced, and a parcel of Canton of good grade was disposed of quite readily. Honey is firmer since the increase in the rate of duty, and fair sales are reported privately. Benzoin, Sumatra, met a limited demand for good alomdy at steady rates. Sarsaparilla was unchanged. Ipecacuanha was again neglected. Buchu, Dragon's Blood and Tinnevely senna were steady but quiet.

ACONITE ROOT.—19 bags fair Japanese were held for 55s. per cwt.

ALOE.—Cape. Eight cases good bright were limited at 42s. per cwt., at which private sales are reported. Ten crates (tins) were withdrawn. Of 73 cases Curaçoa eight had been disposed of before the auction, the remainder, consisting of fair to rather coarse liver, being withdrawn at 75s. to 90s. per cwt. in bond, as to quality. Seven cases Zanzibar in skins were retired at 70s. per cwt.

AMMONIACUM.—Six cases fair to darkish were bought in at 1s. per lb.

ANNATTO SEED was in small supply. Twenty bags Madras of good fresh quality were withdrawn at 4½d. per lb., whilst a small lot of fair Brazilian "in bond" was retired at 3½d. per lb.

ASSAFETIDA.—The offerings consisted of 25 packages, fair blocky gum being offered at 85s. to 95s. per cwt. without response.

BALSAM.—42 cases Para Copaiba were retired. Two cases Peru were offered at 4s. 6d. per lb. duty paid, at which price sales are reported privately. 21 cases *Tolu* were held for 3s. 3d. per lb. duty paid.

BENZOIN.—Sumatra: The supply was not large, but fairly representative. Five cases good alomdy seconds sold at 7½d. per cwt. duty paid, being unchanged in value. Ordinary to fair seconds retired at 6½d. to 7½d., and barks thirds at 85s. per cwt., the last named being "in bond." Siam: There was a good selection on offer at previous rates. Palembang: None offered.

BUCHU.—No fine green were on offer. Fair green round were limited at 1s. 1d. per lb., fair to yellowish 1½d. to 1s., and yellow 10d. per lb. Two bales ovals fetched 8d. per lb.

CALUMBA.—In small supply. 74 bags ordinary natural sorts were held for 15s. per cwt.

CARDAMOMS.—There were none offered in the auction. Privately a good business is reported, and stocks are reduced.

CASCARA SAGRADA continues firm. About five tons of recent importation were offered at 62s. 6d. to 67s. 6d. per cwt.

COLOCYNTH.—Several parcels of pulp were retired at from 7d. per lb. for common brown to 1s. per lb. for good pale. No apples were offered.

CROTON SEED.—A recent arrival of 44 bags Ceylon was bought in at 175s. per cwt.

CUTTLE FISH.—No new parcels were catalogued. Small to medium bone, part broken, retired at 6d. to 7d. per lb.

DRAGON'S BLOOD is selling quietly at about steady rates; fair reboiled lump at £30, middling part drossy offers at £20 to £25, and pale slabs at £11 to £13 per cwt. Middling Zanzibar drop was bought in at 65s. per cwt.

ERGOT.—A parcel of good Spanish was retired at 1s. 4d. per lb. "in bond."

EUCALYPTUS OIL.—About 100 packages offered, B.P., 75 per cent., in cases, 1½d. per lb.

GAMBOGE.—Fair business reported privately since the last auctions. To-day seven cases were offered and held for £16 for good Siam pipe "in bond," and £14 per cwt. for fair ditto "duty free."

GUAIACUM.—Three bags fair block, a little drossy, sold cheaply at 1s. 4d. per lb. in bond. The remainder, consisting of good glassy block, was held for 2s. to 2s. 3d. in bond.

GUM ACACIA.—None sold in auction, the offerings comprising 22 packages Aden, 25 bags bleached Kordofan, which retired at 67s. 6d. to 72s. 6d. per cwt., 40 bags of E.I.—ghatti description—and 63 packages Madagascar. Privately the market for Kordofan is firm; spot cleaned sorts about 39s., natural 38s. per cwt. For shipment, cleaned sorts about 37s. 6d. per cwt. c.i.f.

HENNA.—30 bags Egyptian were retired at 25s. per cwt. HONEY met with little response, although there is more inquiry privately. There were small offerings of Jamaican of under 300 packages, and some medium amber sold at 40s. per cwt., while another lot of amber, not such a good

colour, sold at 35s. per cwt. Prior to the sale two lots of pale smooth sold at 55s. Of darker qualities there was a fair offering firmly held for 31s. per cwt. Further sales were made after the auction of good pale amber at over 50s. Cuban: 28 casks of good pale offered at 35s. to 40s. per cwt. 40 cases Australian withdrawn at 30s. For the time of the year there is a very small stock lying in London, and it will be some months before the new crop arrives.

IPECACUANHA.—Quiet but steady. Only eight bales offered. Matto Grosso retired at 5s. 3d. per lb.; Minas held for 4s. 6d. per lb.

KAMALA.—Two parcels of good quality were withdrawn at 1s. 3d. per lb.

KOLA NUTS.—Five bags W.I. halves retired at 2d. per lb.

LOBELIA HERB.—Five bales fair quality were limited at 1s. 2d. per lb.

MYRRH.—Steady, with small sales. 47 packages were catalogued, prices asked ranging from 47 for fairly good Aden sorts down to 80s. for ordinary dark and dusty, and 60s. per cwt. for rough pickings.

OLIBANUM.—The market continues quiet, good drop being scarce. Medium drop retired at 62s. 6d. to 65s., siftings at 40s. to 45s., and garblings at 40s. per cwt.

ORANGE PEEL.—Good thin-cut peel scarce and wanted. Six cases of very dark thin cut were limited at 5d. to 6d. per lb. "in bond."

QUINCE SEED.—Three bags Cape of good quality were held at 4s. 6d. per lb.

RHUBARB.—Supplies have been considerably reduced, particularly of Shensi, for which the market is firmer. A new arrival of good bold round was held for 4s. 6d., medium and small round retired at 4s. to 4s. 3d., bold flat at 4s. 6d., and pickings at 2s. 6d. to 3s. 3d. per lb. A new parcel of ten cases good quality Canton was disposed of readily before and at the auction at 2s. 6d. to 2s. 7d. per lb., pickings at 1s. 10d. Flat High Dried was held for 2s. 2d., and Common Round at from 1s. 1d. to 1s. 3d. 19 cases English were withdrawn at 10d. per lb.

SARSAPARILLA was unchanged. Eight serons Honduras were held for 2s. 2d. per lb. "in bond," at which price sales are reported privately. 22 bales native Jamaica were limited at 1s. 1d. to 1s. 2d. per lb., and ten bales grey Jamaica were held for 1s. 7d. in bond, with 1s. 5d. bid and refused.

SENNA.—Alexandrian pods in fair supply, but met little demand, prices ranging from 3s. for fair hand picked down to 1s. 6d. for middling and 6d. to 8d. for manufacturing. No leaves offered. Of Tinnivelly the quantity catalogued was small; hand-picked pods offered at 5½d. to 7d. as to quality and f.a.q. grades at 3½d. to 4d. per lb. Privately good bold green are scarce at 6½d. to 7d. per lb., medium bold selling at 5d. per lb., medium at 4d., and small at 2½d. to 3½d., according to quality.

SOY.—Steady. Five casks China held for 2s. 2d. per gallon, "duty paid."

STROPHANTHUS SEED.—Quiet. Ten bags Kombe were withdrawn at 4s. 9d. for good green and 4s. 6d. per lb. for rather weevilly.

TONKA BEANS.—Three casks dull Angostura were limited at 4s. 6d. per lb., and five cases old Para at 10½d. per lb.

TURMERIC.—Steady. 112 Bags offered and retired, Madras finger at 26s., and Cochin split bulbs at 17s. 6d. per cwt.

WAX.—Quiet. The following lots were offered and withdrawn: 111 pkges. Sudanese, one barrel Jamaica, 55 pkges. Nyassa, five bags Mombassa, four pkges. S. Domingo and seven pkges. Madagascar.

The next drug auction will be held on March 16.

Alexandrian Senna

The arrivals in Omdurman of crude Alexandrian senna for the periods stated are as follows:—

	1929-30	1930-31	1931-32	1932-33
	Lb.	Lb.	Lb.	Lb.
November ...	276,304	270,512	84,107	24,746
December ...	380,150	347,821	293,228	130,615
January ...	335,006	169,856	275,251	*175,000
Total ...	991,460	788,189	652,586	330,361

* Estimated. Arrivals during first ten days of January totalled 54,000 lb.

The average yield of usable senna from the crude is about 53 per cent., of which, on the average, about 40 per cent. is leaf, about 8 per cent. is siftings, and about 5 per cent. is pods. From the above statistics it will be observed that the new crop is likely to be short this season, mainly due to damage to the early plantings and adverse weather conditions.

Correspondence

Letters should be written on one side of the paper only. Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor

Blood Grouping

SIR,—A short article appeared in your issue of January 7 by Mr. R. Cecil Owen on "New Work for the Pharmacist," relating to blood grouping. Without entering into an argument as to how far the pharmacist should encroach on the work of the pathologist, I would like to point out a serious error in this article. Human blood can be and is grouped into four groups, but the numerical grouping by Mr. Owen conforms in no way to any of the standard groupings and is an arbitrary grouping of Mr. Owen's own. The following is a table showing the correct standard groups:—

Moss's classification	Jansky's classification	von Dungen and Hirschfeld	Agglutino-gen (cells)	Agglutinin (serum)
1	4	A B	A and B	neither
2	2	A	A	β
3	3	B	B	α
4	1	O	neither	α and β

Moss's terminology is the recognised grouping in this country, although the originator was an American, while Jansky's terminology is extensively used in America and on the Continent. From this table it will be seen that Mr. Owen has classified Group O (= Group 4 Moss) as Group 2, and so on. Unless this is realised and understood by any worker, confusion, with possibly fatal results, is bound to follow.—Yours faithfully,

H. A. MITCHELL, B.A., M.D.,

Medical Director, Evans' Biological Institute.

Runcorn.

A Surfeit of Meetings

SIR,—I am glad to see that you draw attention to the excessive number of meetings organised by the various branches and associations (*C. & D.*, January 7, p. 14), many of which in the metropolitan area and other densely populated districts tend to overlap and thus aggravate the trouble. At one time the complaint was that chemists were badly organised, and that there were no opportunities for them to meet to discuss business matters or to get together socially. Now we seem to have gone to the other extreme, for in addition to the meetings of the bodies you mention there is the Photographic Dealers' Association, and a chemist who takes an active part in the work of these and is elected an official or committeeman has as well as the ordinary meetings those of the committees to attend, and he may also be appointed a delegate to other branches and meetings. In addition, he may be a member of the local Insurance Committee. To such a man in the winter months this may mean that he has at least three or four evenings a week mortgaged, so that any chemist who intends to take one of these positions seriously must be prepared to devote the whole of his spare time to it. The chemist who does not take any active share in the work of his local body looks on this plethora of meetings as a nuisance, especially the man with a small business and no assistant. Again, the matter provided tends to have a great lack of variety: if one follows the reports of the addresses of the speakers who visit the various branches, one is struck by the sameness of their remarks. And there is a definite lack of business interest in the meetings of the present day. Some way should be found to provide opportunities for discussions on business matters at one or two meetings during the winter session, when perhaps a better attendance would be secured.—Faithfully yours,

DOZZANA (17/1).

Referring to Prescriber

SIR,—Some of your correspondents have dealt recently with the subject of referring ambiguous prescriptions back to the prescriber. The matter acquires a special significance in connection with insurance prescriptions. It may be unnecessary, as some writers indicate, to trouble the prescriber, and easy for the chemist to alter the prescription when he is familiar with the practitioner's habits; but I find that pricing officers do not always allow the chemist to modify a doctor's prescription. Methods vary in different pricing offices, and those responsible for adjoining insurance areas sometimes adopt different practices. The principle appears to be that the prescription must be written in such a way that it may be dispensed by any pharmacist; familiarity with a practitioner's habits, therefore, is not to be made an excuse for a doctor's bad writing. If the prescription is altered by the dispenser and dispensed accordingly, the practitioner may disclaim responsibility for what was actually supplied. Therefore at the pricing office the alteration may be ignored, and the contractor credited with the value of the order as originally written. Correction of overdoses and elucidation of badly written signs may be permissible; but it can be imagined that the contractor who alters the prescription to save the prescriber the trouble or annoyance of having an ambiguous or incomplete order returned to him may be doing himself a bad turn by supplying something for which the pricing office will not pay.—Yours truly,

RETURN IT! (17/1).

Reminiscences

SIR,—The very interesting and characteristic article by Mr. William Johnston is inclined to provoke other reminiscences, particularly those relating to one's apprenticeship days. I have in my possession a few copies of the "Anti-Cutting Record" for 1895 and 1896, No. 1 of the "Anti-Cutting Record" appeared in November, 1895, and from the title-page one learns that a copy of each issue was sent free to each chemist in the United Kingdom. A prize of £2 2s. was offered for the best way to "Give cutting the cut direct." Suggestions were required for starting a scheme for price protection which should combine an element of combination amongst manufacturers with arrangements for "fixing" the wholesale as well as the retail trade. There was also required a method of tracing the articles at least to the first buyer. This first number contained paragraphs on some of the anti-cutting schemes already in force, among them being Elliman's Embrocation, Messrs. Stern's articles, Frog in Your Throat, Frame Food, Mellin's Food, Liebig Company's Extract of Meat, Invalid Bovril, and Allen & Hanbury's preparations. The first list of protected articles numbered thirty-nine; many of them are never heard of to-day. By the end of 1896 the official protected list of the Association contained forty-three articles, although there were still a number of manufacturers who, although in sympathy with the new Association, did not place their goods upon the official list. By the end of 1897 the list of articles had grown to about 120 and included many which are still popular; thence onward the number rapidly increased. In the December 1895 issue the editor commented upon the attitude of the trade Press towards the new movement. Apparently favourable mention of it had been made by *THE CHEMIST AND DRUGGIST* and "The British and Colonial Druggist" (as it then was), but the "official organ" came in for some rather strong comments. There were several illustrations in the "Anti-Cutting Record" bearing on some aspect of the subject of cutting. The wit was caustic.

Yours, etc.,

MANUFACTURER (17/1).

Unfair Competition

SIR,—In the article on "Opening a Pharmacy" in the *C. & D. Diary*, 1933, under "Attitude to Competitors," it is stated that "time was when each man looked askance at his competitor down the street, and there were some men who would not give an order to a representative if it was known that he had called upon some other chemist." At first sight this may seem a selfish attitude for any chemist to take; yet there are pharmacists who have been compelled to do so against their own wishes in self-defence, and the difficulty is not a relic of the past, but in some instances a very present one. When a competitor watches one's windows and displays in order to undercut the prices of the goods one has made a feature of, and when in these days of packed goods one sees the same styles and showcards marked at a lower figure, there is no option but to refuse to order goods from the same travellers, unless a definite assurance is given that similar packs will not be supplied to another chemist in the locality for the purpose of undercutting. One would have thought that in these days of local associations and branches the "get-together" spirit of pharmacists would have been more developed.—Faithfully yours,

COMPELLED TO (9/1).

Distribution of the Chemists' Fund

SIR,—The time is drawing near when we may expect to participate in the final distribution of the chemists' fund for the year 1932. If there is more money available than is required to pay all the accounts in full there will be a bonus, as there has been in some previous years. There is a point which seems to me to have some bearing on this matter, affecting as it does the total amount available. To meet pharmaceutical committees' expenses, insurance committees make a deduction from the monthly accounts of each chemist in their area equal to 1, 1½, or 2 per cent. of the dispensing fees. At the end of the year there must be an unexpended balance in the fund which is made up of these deductions, because the pharmaceutical committee has not drawn all the money available. There are approximately 150 insurance areas in England and Wales, and the total of these balances must be quite an appreciable amount. The finances of each year, I understand, are kept separate, and the money deducted in any one year should definitely belong to the chemists on the panel for that year. A chemist may withdraw from the panel at the end of the year, and then any balance carried forward to another year will not benefit him. Are these end-of-the-year balances taken into account when the distribution of the chemists' fund and the apportionment of any surplus are being arranged? Again, pharmaceutical committees themselves make drawings from insurance committees from time to time during the year to meet their current expenses. Each of these probably has a balance in hand at the end of the year. All this money comes out of the chemists' fund, and in the case of the larger committees these balances may be considerable sums. Would some pharmaceutical secretary, experienced in insurance finance, tell us whether any notice is taken of these unexpended balances, deducted from the chemists' accounts, when at the end of the year the possibility of a bonus (generally calculated to two places of decimals) is under consideration?—Yours, etc.,

INQUIRER (18/1).

Steamy Windows

SIR,—The illustration in *THE CHEMIST AND DRUGGIST* (January 7, p. 7) of Mr. Lunn's new shop front filled me with envy; it is the very shop front I have been wanting for years. The fascia, in particular, is masterly in its plainness, and gives the lie to the supposition that ornate styles of lettering are preferable to plain block capitals. The writer of the descriptive notes which accompany the photograph touches on a problem that is giving chemists much trouble at the moment—the steaming of shop windows. . . . If the truly airtight window has been devised I have not yet heard of it; and the common experience is that the temperature of the air in the window is approximately the same as the temperature of the air in the shop. My own experiments show that the only way

to prevent moisture condensing on the window is to warm the glass and to keep the air of the shop as dry as possible. On a cold day the vapour from a boiling kettle, or from vessels in which decoctions are being made, or from a floor that is being washed, quickly reappears as a film on the windows. . . . I have tried many devices to keep my windows clear, and the one that gives the best results is simple, inexpensive, and has considerable advertising value. It consists of an oblong metal box, having a removable opal glass panel in front bearing advertising matter in monochrome or various colours, and a reflector beneath. Behind the panel are two sockets to hold 100-watt lamps, and the apparatus is plugged in to any convenient point of electricity supply. The box, which is in effect an illuminated sign, is placed on the bottom of the window enclosure, as near to the glass as possible; and the heat from the lamps rises as a fan-shaped current of warm air over the surface of the window, and quickly dries it. . . .—Yours faithfully,

BERNARD W. GILL.

Nottingham.

Destamping of Proprietaries

SIR,—Much ink has been spilled over this problem, but little has been accomplished. I would like to suggest the serious consideration of the wording on the patent-medicine stamp. The absence of the stamp from goods sold by chemists, while the identical pack is sold stamped by grocers, etc., is the finest gratuitous advertisement the latter could have. Pharmacists should (and could) demand, through the N.P.U. and the P.A.T.A.: (1) The right to sell destamped goods at destamped prices without loss of profit; or (2) the sole right of sale of any destamped article advertised to the public; and (3) adequate protection against wholesalers who, knowingly or otherwise, supply destamped goods to traders not entitled to handle them. No unstamped article should be sold at the same price as the same article stamped. As usual chemists are put in a "doormat" position—this time they are offered a small share in the "spoils." Cut the canker before it becomes a cancer.

Yours faithfully,
PRO BONO (18/1).

Subscribers' Symposium

For interchange of opinion among "C. & D." readers and brief notes on business and practical topics

Pursued by Circulars

It is now precisely six years since I retired from retail pharmacy. Although I have protested, I still continue to receive price lists, trade circulars, advertising offers, etc., redirected by the Post Office to my present private address! Is it a fact that the Prince's appeal, "Wake up, England," did not arouse chemists' wholesalers? I fear so.—Retired (16/1).

Blood Grouping

I have received several inquiries as to the *modus operandi* of blood classification. The necessary technique is set forth in the book I referred to in my recent article, viz., "Individuality of the Blood," by Professor Leone Lattes. This technique is quite simple and might well be carried out by any pharmacist with scientific leanings. Second-year medical students (lads and lasses of eighteen or so) are now obliged to master it, and I am told they do so without difficulty.—R. Cecil Owen, Chester.

Twenty Years Later

On Christmas Eve, 1912, just as all expectation of another customer was being abandoned (the time must have been about 10.30 p.m.), a local magnate and his wife came in and purchased ten bottles of perfume at £1 each, insisting on adding one for my wife, who had called to help me with the finishing touches. Last Christmas Eve the same magnate came in alone for—a scrap of cotton-wool to put in his ear! He was as well dressed as of old, and I had the presence of mind to persuade him to buy a threepenny packet. The state of local industries explains the difference between the two orders.—Exchange (10/1).

Dispensing Notes and Difficulties

Change of Colour

SIR,—We have had trouble in dispensing the following mixture which on standing develops a blue colour:—

Ammonii bromidi	gr. v.
Magnesi carbonat. pond. ..	gr. x.
Magnesi sulphat.	gr. x.
Tr. nucis vomicae	℥ x.
Aq. menth. pip.	ad 3ss.

Yours faithfully,

R. & W. (21/6).

[We have made the mixture and allowed it to stand for ten days. We do not get any change in colour after standing, and cannot see what change could occur as chemically the constituents are perfectly compatible. The only possible source of difficulty might be with the tincture of nux vomica and the hydrated carbonate of magnesia, which is alkaline.]

A Separating Cream

SIR,—The following cream separates after about ten days. Your advice will be appreciated:—

Ung. ac. salicyl.	3j.
Glycerin. amyli	3j.
Adip. lanæ hydros.	3iv.
Ol. amygd. dulc.	3ij.
Aq. calcis	ad 3vj.

Yours faithfully,

J. S. (23/11).

[This prescription is best dispensed by mixing the ung. ac. salicyl. and adeps lanæ hydrosus in a warm mortar, add the ol. amygd. dulc. and rub together until smooth. Add 10 drops of ac. oleic. Incorporate one and a half ounces of aq. calcis and mix to a fine cream. Take the glycerin. amyli, rub it down on a warm porcelain tile until soft, and incorporate it with the fatty cream. Unless the temperature is just right it will be necessary to rub the whole down to a smooth creamy ointment with a bone spatula on a porcelain tile. The cream keeps well for a week, after which it becomes granular and tends to separate because of the glycerin. It is still therapeutically active although the emulsion is unsound. The few drops of ac. oleic. helps to make a more perfect cream. A little white wax or stearin will improve the preparation, but these must be added when ung. ac. salicyl. is made, by substituting white wax for an equal quantity of hard paraffin, using 10 per cent.]

Legal Queries

D. J. (30/11).—The inclusion of the word *seborrhoea* in the title "Ointment for Seborrhoea" renders the article liable to medicine-stamp duty.

F. L. O. (28/12).—Tincture of chloroform and morphine B.P. 1885 contains less than 0.2 per cent. of morphine and consequently is outside the Dangerous Drugs Acts. On the other hand, it comes within Part I of the Poisons Schedule since it contains more than 0.1 per cent. of hydrocyanic acid.

Hawthorn (14/12).—The cost of alterations to the shop being expenditure of a capital nature is not allowed as a charge against profits in computing income tax liability. You may charge it in this account but it would have to be "added back for tax purposes." Your best plan, if you produce a proper balance sheet and profit and loss account, is to charge the cost to an account such as "Furniture, Fixtures & Fittings Account," and then you may claim 5 per cent. wear and tear allowance by making such claim on your annual Income Tax return form. If you produce an account as aforesaid and submit a copy to the inspector of taxes, you should have no difficulty in getting this relief. It must be clearly understood, however, that the alterations can be said to affect the "fixtures and fittings" of the shop, such fittings being tenants' fittings and not those belonging to the landlord.

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for, and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

Sprayer (1/33).—FLY SPRAY BASES.—There is considerable variation in the distillation range and in the gravity of the petroleum distillates used as bases for the pyrethrum extracts of which certain household sprays consist. In an investigation made to determine which fractions are most efficient for use in the preparation of these extracts, the distillates were first tested alone, and then extracts of pyrethrum prepared with these distillates as bases. It was found that distillates in the higher-boiling range (378-546° F. or 192.2-268.9° C.) are most toxic. Short-cut fractions varying in distillation range from 398° and 500° F. (203.3° and 260° C.) were equally efficient as the longer-range fractions, but the latter should be more suitable from an industrial standpoint. A distillate refined by the Edeleanu process shows little difference in insecticidal effect from that refined by the usual method. The long-range distillate that is most efficient when tested alone was found to give the most efficient extracts of pyrethrum.

B. P. (6/28).—ESTIMATING CHLORINE IN WATER ANALYSIS.—Presumably you have in mind the Ellms-Hauser reagent for detecting the presence of free chlorine in chlorinated water. This consists of a 0.1 per cent. solution of ortho-toluidine in hydrochloric acid (10 per cent.).

Bute (10/1).—LUMINOUS PAINT.—This is generally made from zinc sulphide with either radium or mesothorium as the radio active substance. A solution of zinc chloride should be prepared from the metal or oxide, purified and precipitated as sulphide, which is then dried and ground. To the dried sulphide is added the desired impurity, which is nearly always copper (the proportion usually being 1 in 10,000 to 50,000) in the form of dilute sulphate solution. The sulphide is again dried, ground and heated to 1,300°-1,400° C. This is the delicate part of the process. The best method of adding the radium or mesothorium is to mix the sulphide with water and alcohol, add the radium salt dissolved in water, and then precipitate it as sulphate in contact with the sulphide by adding gradually a slight excess of potassium or ammonium sulphate. The mixture is then dried at ordinary temperature in a vacuum over sulphuric acid. To apply the luminous powder it is made into a thick paste with a suitable transparent varnish. Mastic or copal varnish or one with a basis of cellulose nitrate could be used. Maximum luminosity is attained in ten to twenty days. The proportion of radium element in the paint can be varied according to requirements from, say, 0.2 mg. per gm. to 0.01 mg. per gm.

Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," January 15, 1883

Statistics of Failures

The interesting statistics of failures issued semi-annually by Mr. Richard Seyd, F.S.S., have for some time past revealed a gratifying general improvement. . . . The total number registered in the United Kingdom in those years (1877-82) has been as follows:—1877, 11,022; 1878, 15,059; 1879, 16,637; 1880, 13,147; 1881, 12,005; 1882, 11,019. . . . We extract the figures referring to our own business:—

Year	'77	'78	'79	'80	'81	'82
Wholesale chemists, druggists, &c.	20	41	30	18	17	9
Chemists, druggists	76	96	96	95	62	72

In summarising the whole Mr. Seyd remarks:—"The year 1882 may be regarded as a fairly prosperous one. There is no lack of orders in most branches of business, but profits are small. . . ."

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Quinisan had no unpleasant by-effects, and when administered in the first 24 hours is an *absolutely reliable remedy* for cutting short the attacks.

These observations are based on 50 cases."

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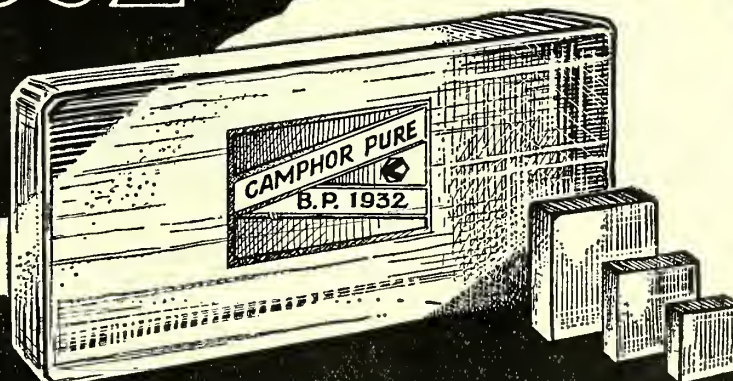
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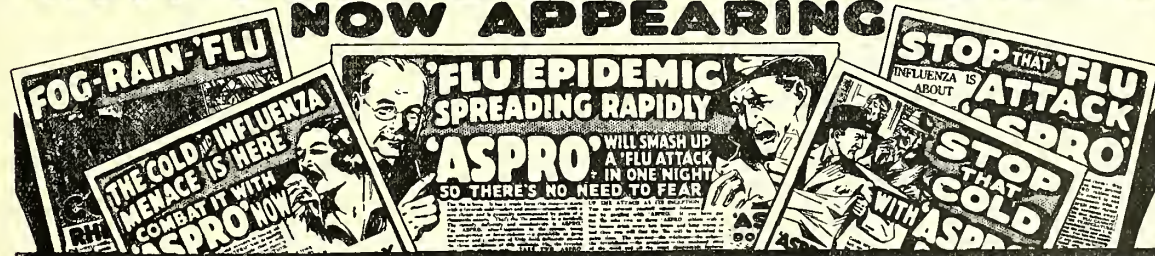
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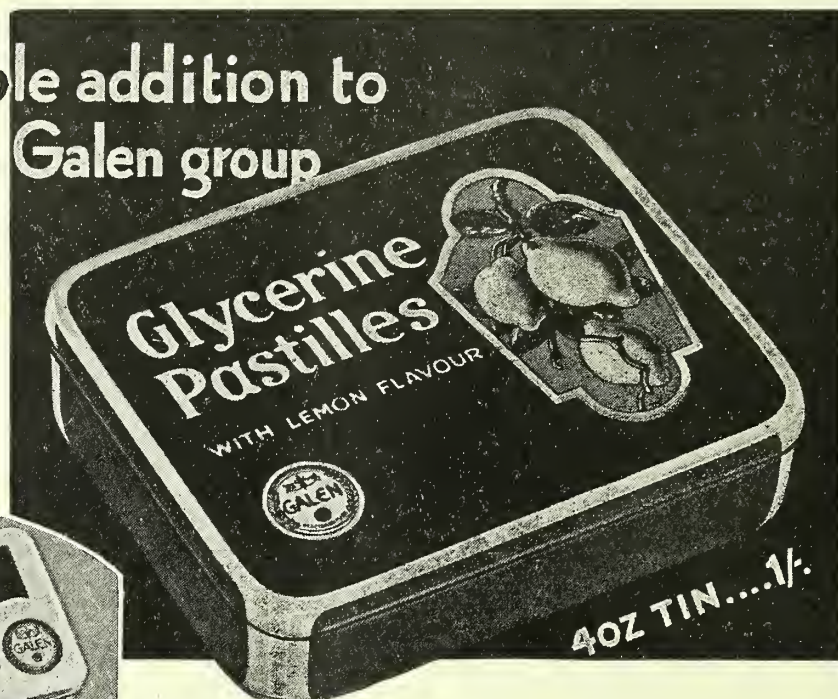
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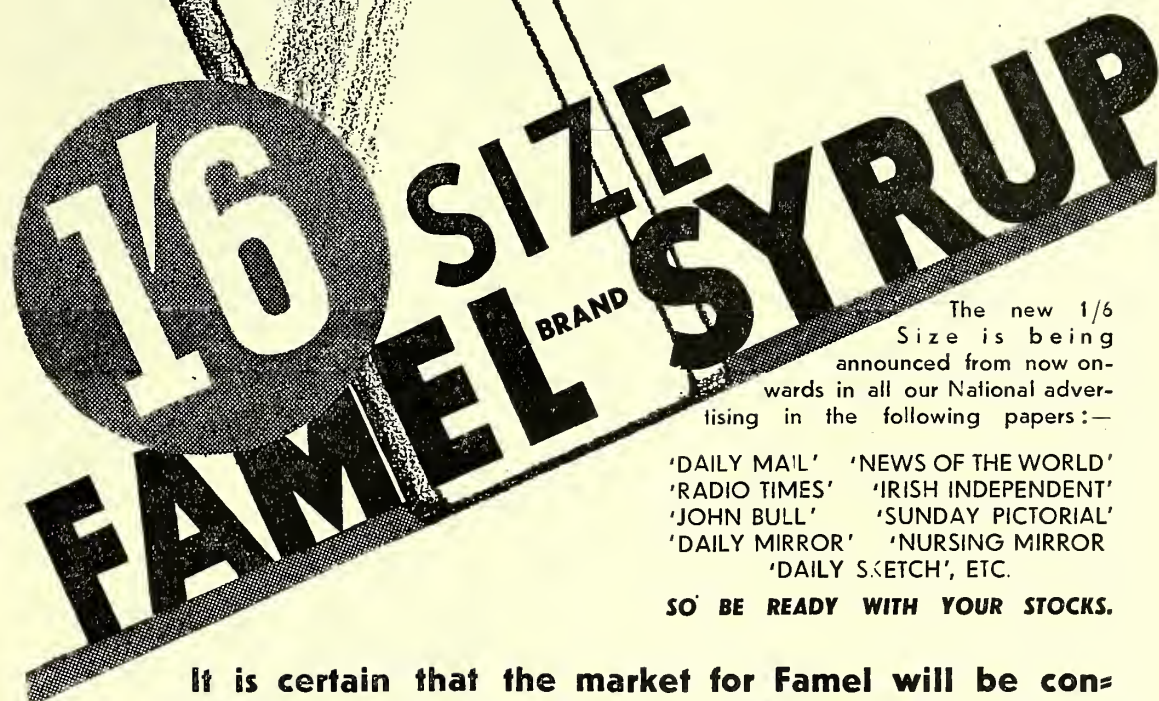
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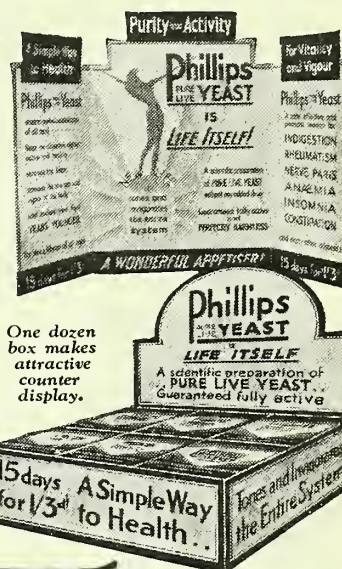
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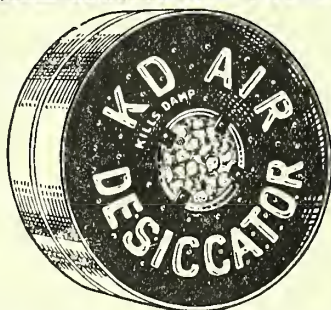
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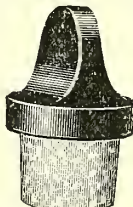
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(NOTE THAT WORD "ONLY.")

NO ADULTERATION OR ADDED COLOURING

That is a plain statement of fact which your customers will appreciate. We ask Retailers to co-operate in safeguarding consumers against mixtures loaded with substitutes and labelled so as to deceive more by suppression of facts than by what is stated.

**PURE BEER MEANS MALT and HOPS ONLY
IN ONE WORD — VIGGORMALT
100% TONIC FOOD**

YEAST
SUPPLIED FREE
WITH EACH TIN

NO MILLING
MASHING
BOILING OR
FILTERING

VIGGORMALT makes genuine "OAMBROO" BEER (ALE OR STOUT) of perfect character, by simply adding cold water and the FREE YEAST, and at an amazingly low cost. Once introduced it quickly becomes a regular item on the shopping list. National Advertising is extensive and constant.

WRITE FOR TRADE TERMS AND
ATTRACTIVE DISPLAY MATERIAL TO
THE VIGGORMALT DISTRIBUTORS:—

FASSETT & JOHNSON, LTD.
86 CLERKENWELL ROAD, LONDON, E.C.1

Sole Manufacturers:

VIGGORMALT Ltd., Davigdor Road, Hove, Sussex

GALLOWAY'S COUGH SYRUP

*SHOWS OVER 50% PROFIT
WHEN BOUGHT ON BEST TERMS*

A £5 ORDER

ENTITLES YOU TO

10% DISCOUNT and 2½% for Prompt Cash

1/3 SIZE 12/- PER DOZ.

2/6 „ 24/- „ „

CARRIAGE AND PACKING FREE IN UNITED KINGDOM

FAMILY LUNG SYRUP

Special Offer for £5 Parcel

6½d. size - - - 4/9 per doz.

1/- „ - - - 9/- „ „

1/6 „ - - - 13/6 „ „

5% DISCOUNT AND 2½% FOR PROMPT CASH

*LOOK TO YOUR STOCKS AND
SEND YOUR ORDER NOW*

P. H. GALLOWAY, LTD.
LONDON, S.E.17

The responsibility for the coming generations remains with us.

That the human body demands a sufficient supply of Vitamins to maintain it in a healthy state has been known for less than a generation.

Many people still suffer from lack of one or more vitamins, particularly A and D which give protection against infectious diseases and prevent rickets.

Scientific study of the problem of nutrition has shown that these vitamins are found to the greatest extent and in the least expensive and most accessible form in cod liver oil — a product which has become indispensable to the community.

Cod liver oil is regarded by eminent physicians as one of the most powerful weapons mankind possesses in the battle against disease.

Norwegian cod liver oil is world famous for its supreme quality.

A teaspoonful of Norwegian cod liver oil contains more A and D Vitamins than all butter and milk one could possibly absorb in one day.



NORWEGIAN COD LIVER OIL

PURE RUSSIAN LIQUID PARAFFIN MEDICINAL B.P.

ALL GRAVITIES.

HIGHEST VISCOSITY.

PURE RUSSIAN "JASMINE" BRAND WHITE OILS

CHEMICALLY PURE.

WATER WHITE.

ODOURLESS.

FOR MANUFACTURING PURPOSES.

*Competitive Prices.**Best Quality.**Immediate Delivery.*

THE PURE RUSSIAN LIQUID PARAFFIN CO., LTD.

80 BISHOPSGATE, LONDON, E.C.2

Telephone: LONDON WALL 7132-7133.

Telegrams: "INVATORE, STOCK."



Portrait of a Gentleman

One of the ten million or so influenced
by each insertion of Kay's national
Press advertising. Show material
and counter wrappers on request.

KAY BROTHERS Ltd. STOCKPORT

Lofthouse & Saltmer, Ltd., Hull



GENUINE
**COD
LIVER
OIL**

FOR CATTLE
AND
POULTRY

Guaranteed to contain all the Vitamins naturally
present in a genuine oil, and to conform to the fol-
lowing tests of the British Pharmacopoeia for pure
Medicinal Cod Liver Oil, namely: Specific Gravity,
Saponification Value, Iodine Value, Refractive
Index, Unsaponifiable matter.

1 gall. & 5 gall. Tins. 25 gall. Barrels & 40 gall. Drums
Free Containers. — ENQUIRIES SOLICITED.

Lofthouse & Saltmer, Ltd., Hull

NORVIC

Regd

CRÊPE BANDAGES and BINDERS

*A small display
will increase your
Crêpe Bandage
sales considerably*



ON P.A.T.A. LIST.
FULL 33 $\frac{1}{3}$ % PROFIT.

ORDER FROM YOUR USUAL WHOLESALER.

Sole Manufacturers: Grout & Co., Ltd., 35 Wood St., London, E.C.2.

PERKEN, SON & CO., LTD.

Established 1852.

Contractors to H.M.
Government.

THE
"MATER"
CLINICAL
REGD.

ALL
TYPES
OF
CLINICAL
AND OTHER
THERMOMETERS

Price List on Application.

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LONDON, E.C.1

Telephone: 0724 Holborn.
Telegrams: "Optimus, Smith, London."



J. H. HAYWOOD, Ltd.

Surgical Appliance Manufacturers,
Castle Gate, NOTTINGHAM

Telephone: 40488 NOTTINGHAM.
Telegraphic Address: "APPLIANCE, NOTTINGHAM."

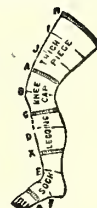
Established 1833



SPECIALITIES FOR WINTER.

ELASTIC HOSIERY (Seamed and Seamless), TRUSSES (Spring and Elastic), SUSPENSORY BANDAGES, BRACES, LADIES' AND GENT'S ABDOMINAL BELTS for support and warmth, made in felt, flannel and fleecy.

CHEST PROTECTORS, SLEEPING SOCKS, INDIA-RUBBER AND AIR-PROOF GOODS, NURSING REQUISITES, DRUGGISTS' SUNDRIES, &c.



PRICES ON APPLICATION

BE PREPARED

FOR THE WINTER SEASON

Your enquiries are invited for

POROUS PLAISTERS

of all descriptions. Samples and prices
furnished upon application

WILLIAM MATHER, Ltd.

DYER STREET - - HULME, MANCHESTER





THE NEW SCIENTIFIC CONTRACEPTIVE

Five years ago a group of gynæcologists set to work to discover a contraceptive that doctors could prescribe and chemists recommend with confidence. At the outset they laid down certain essentials :—

It must be non-injurious.
It must be non-irritant.
It must be non-toxic.
It must be reliable.
It must be simple to use.

It must be unnoticeable in use.
It must require no after-effort.
It must be immediately effective.
It must not depend upon physiological conditions.

MIL-SAN is the result of their work. It meets the demands laid down. It more than meets them as it is also healing, antiseptic.

MIL-SAN also fulfils other essentials of direct interest to the chemist.

It makes satisfied customers.
It shows a good profit.
It does not deteriorate.
It is attractively packed.
It ensures repeat sales of
refill bottles.

Medical advertising and
Private recommendations
will create new customers.
Sensible and frank litera-
ture supplied free for
distribution.

Complete Outfit
7/6

Refills
5/-

Special Offer :
1 Complete Outfit
and 3 Refills **21/-**

All less 33½ discount from wholesalers, or direct.

Further information from—

MENOSINE LIMITED

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Tel. : Hol. 5657



"MOSANS"

Non-Greasy, Odourless

QUININE PESSARIES



15/-

per dozen
boxes

RETAIL
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ORDER THROUGH ANY WHOLESALE.

Avoid Imitations and see the No. 332117 on each box.

MORFI RUBBER
PRODUCTS
KAYDOR LTD.

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THE "SAFEGUARD"
BRAND OF RUBBER GOODS

Are SUPPLIED to CHEMISTS & DRUGGISTS ONLY
FINEST QUALITY. HYGIENIC PACKING

Write for Samples and Prices.

BURGE, WARREN & RIDGLEY, LTD.

91/92 GREAT SAFFRON HILL, E.C.1

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SANITARY TOWELS

made
by

The ORIGINAL and Most Popular

The "K." All wool in knitted cover,
very soft.

The "CELTEX." Made of Cellulose
for easy disposal.

FROM YOUR WHOLESALE HOUSE, PLEASE

SOUTHALLS

"SURCO"

RELIABLE

ELASTIC HOSIERY

SEAMED & SEAMLESS

For special garments to
measure we maintain a 24
hour service.

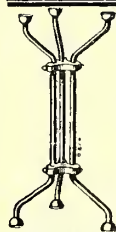
:: BODY BELTS ::
TRUSSES :: SUNDRIES

Write for Catalogue.

SURGICAL HOSIERY CO., LTD.

Russell Street :: NOTTINGHAM

Telephone No.: 75903. Telegrams: SURGICAL, NOTTM.

**CHROMIUM PLATED
DISPLAY FITTINGS—**

No. CD/SF5116c
Metal Display
Tripods with
Rubber Buffers
top and bottom.
**CHROMIUM
PLATED
finish**

9 in. 2/3 each
12 in. 3/9 "

15 in. 4/9 each
18 in. 5/9 "

Send for a copy of our full list of Shopfittings No CD 1360 free.

DUDLEY & CO. LTD., 451 Holloway Road, LONDON, N.7
City Showrooms: 65-66 Finsbury Street, E.C.

Modern Display needs
Black Glass Ovals



No. CD/SF 5131 Black Glass Ovals,
Rounded and Polished edges.

Stocked in 3 sizes only:
14 1/2 x 10 in. - - 4/- each
18 x 12 in. - - 5/9 "
20 x 15 in. - - 7/6 "

DISTILLED WATER

AT

**1
3d. PER GALLON**

By using Brown's Patent Automatic Water Stills pure distilled water may be obtained at the above cost, using steam at any pressure between 30 and 100 lbs. per square inch. The product is pure distilled water, not condensed water from steam service pipes.

Full particulars free on application. Enquiries are not followed by personal call.

MADE ALSO FOR GAS HEATING

BROWN & SON, LTD

Alembic Works, Wedmore St., London, N.19

Awarded Certificate by
The Institute of Hygiene
for Purity—Quality—Merit

**LOCARNO
MEDICATED
TOILET ROLL**

Costs 3d



**BRITISH
MADE**

Sells 6d

*Sales
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to Chemists*

*You are sure of
repeat orders
by selling the
"LOCARNO"*

**Contains 650 sheets of pure
white Sulphite Paper.
Free delivery. Packed in cartons
Free Sample Roll on application
Each Roll 12 oz.**

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VICTORIA RD. HOLLOWAY, LONDON, N.7

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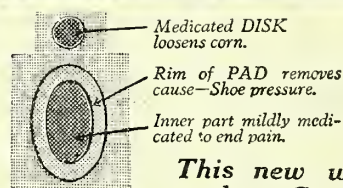
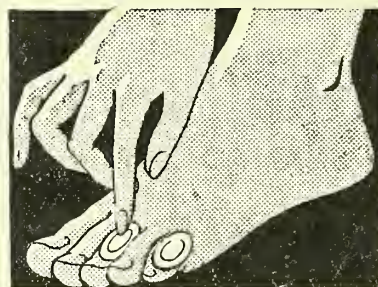
Dr. Scholl's Zino-pads

The ever increasing demand for the world-famous Dr. Scholl's Zino-pads results not only from the extensive Scholl advertising, but from the merit of the pads themselves. The public is quick to discover that instant relief is obtainable for Corns, Callouses and Bunions by using these scientific remedies. Dr. Scholl's Zino-pads are supplied in four sizes—for Corns, Callouses (Hard Skin), Corns-between-toes and Bunions.

11/3 per dozen—Retail 1/3 per packet

NEW! Medicated Disks

Now, an extra treatment is included in every packet of Dr. Scholl's Zino-pads for Corns and Callouses, but at no extra cost. Medicated Disks are included for swift action—for removing obstinate, hard corns and callouses in two days! They are used in conjunction with Dr. Scholl's Zino-pads—the thin, safe, antiseptic pads which soothe, heal, protect and end pain the moment they are applied.

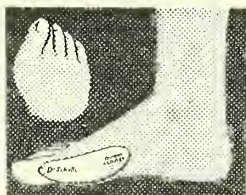


*This new way
ends Corns
in 48 Hours!*



Dr. Scholl's Aids to Foot Comfort

There is a big range of Dr. Scholl's Aids to Foot Comfort of which we illustrate two. All are best sellers—all bring good profits quickly.



Dr. Scholl's Bunion Reducer

gives instant relief and comfort in painful bunion conditions. Reduces swelling and inflammation. In small, medium, and large sizes. Rights and lefts.

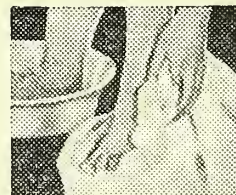
Dr. Scholl's TARSO-PADS

are NON-MEDICATED, but made in the same four sizes as Dr. Scholl's Zino-pads. They give quick relief and sure protection against friction and pressure—the cause of these painful foot troubles.

Dr. Scholl's TOE-FLEX

straightens crooked toes with absolute comfort by exerting an even, outward pressure. Ensures safe correction and prevents development of painful bunion conditions. In small, medium and large sizes.

Send for complete PRICE LIST and order through your usual Wholesaler, or



Dr. Scholl's Bath Salts

(Super Oxygenated) relieve tired, tender, aching, or perspiring feet; for loosening stubborn corns and hard skin. Used also in the bath for muscle and joint stiffness.

The SCHOLL MFG. CO., LTD., 188-194 St. John St., London, E.C.

Whiffen's Clove Oil

Distilled from Zanzibar Clove-buds only

Distinguished by its uniform pale colour

Also Almond Oil

Sandalwood Oil

(East Indian
& Australian)

Caraway Oil

WHIFFEN & SONS LTD.

CARNWATH ROAD, FULHAM, LONDON, S.W. 6

Telephone : Fulham 0037

Telegrams : Whiffen, London

Code : A.B.C. and Bentleys

AYRTOID

DIVIDED STICK

LIQUORICE

JUICE

THE FINEST MADE

Cleanly moulded jet black sticks which break perfectly for selling in 1 ounce pieces. The fracture sparkles without splintering. 4 lb. cartons packed tightly with first grade bay-leaves.

16 lbs.	28 lbs.	56 lbs.	1 cwt.
per lb. 1/6	1/5½	1/5	1/4½

Free gold lettered "Shop-Round"
Jar with first 28 lbs.

AYRTONS
LIVERPOOL :: ENGLAND
and at DUBLIN, I.F.S.

To Wholesale and Export Trades
SOLID & LIQUID
EXTRACTS

Green Extracts •
Expressed Juices •
Essential Oils •
Belladonna & •
Henbane Preps. •

MEDICINAL
SPIRITS
IN BOND FOR EXPORT

WILLIAM RANSOM & SON LTD.

Manufacturing Chemists
HITCHIN, Near LONDON

MALTED FOODS

*Special Foods Devised
"Own Name" Formulae
Prepared & Packed*

George King & Co. Ltd.
Sycamore Street
London. E. C. 1

IN TINS OR TONS

Wyleys

Wholesale **LIMITED**
Druggists,
Manufacturing
Chemists.

COVENTRY

ESTABLISHED 1750
NEW SPECIALITIES
"NAPLITHIN"

Analgesic, Antipyretic,
Urinary Antiseptic.

1 oz. bottles Powder 1/6, 18/- per lb.

"ELIXIR BROMO-VALERIAN CO"

Useful for functional nervous
affections, particularly in con-
trolling epileptic seizures.

Price 5/- per lb.

The CHEMIST AND DRUGGIST SUPPLEMENT

This Supplement is inserted in every copy of The Chemist & Druggist

JANUARY 21, 1933

28 ESSEX STREET, LONDON, W.C. 2

ADVERTISEMENT TARIFF

ALL ADVERTISEMENTS are PREPAID, so that remittance must accompany instructions in each case. If it be necessary to telephone or telegraph an urgent announcement this may be done, provided the money is telegraphed at the same time.

BUSINESSES WANTED and for **DISPOSAL, PREMISES TO LET** and **FOR SALE, PREMISES WANTED, PARTNERSHIPS, GOODS** for **SALE** and **AGENCIES**—6/- for 50 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

SITUATIONS OPEN—6/- for 40 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

SITUATIONS WANTED—2/- for 18 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

LEGAL NOTICES, TENDERS, AUCTIONS, and all specially-spaced announcements, 1/3 per nonpareil line (12 lines = 1 inch single column). (Box No., 1/- extra.)

MISCELLANEOUS (Wholesalers' Section) for odd and second-hand lots—10/- for 60 words; 1/- for every additional 10 words or less. (Box No., 1/- extra.)

EXCHANGE COLUMN (for Retailers, etc.)—Twopence per word, minimum 2/- (Box No., 1/- extra.)

THE CHEMIST & DRUGGIST, 28 Essex St., Strand, London, W.C. 2

Telephone: Central 6565 (8 lines).

Telegrams: "Chemicus, Strand, London."

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must reach us
not later than

FIRST POST THURSDAY MORNING

All advertisements intended for
insertion in this Supplement

ORRIDGE & CO.

56 LUDGATE HILL, E.C. 4

ESTABLISHED 1846

Telephone No.: CITY 2283

May be CONSULTED at their Offices on MATTERS of SALE, PURCHASE & VALUATION

We make no charge to purchasers, and invite intending buyers to communicate with us, stating their requirements.

1.—**BANKS OF THAMES** (near London).—Good-class Retail Business with Kodak Agency; very old-established; the business has been neglected of late and the turnover for 1932 was £1,300; well-fitted double-fronted shop in main road, fairly well stocked; good house; side entrance; rent £150; renewable lease; further details to genuine purchasers.

2.—**LONDON, S.W.**—High-class Retail and Dispensing Business in main thoroughfare; returns exceed £3,000 at good profits; single-fronted shop occupying excellent position; premises held on lease; after allowing for sub-lets the rent is a small one; further details upon application.

3.—**CITY**.—Business with Kodak Agency; established 1758; returns average £2,100 per annum; present rate less (under management); if conducted personally a net profit of £400 yearly could be made; small shop; held on lease; value of stock and fixtures only required.

4.—**EARLS COURT** (near).—Good-class Retail and Dispensing Business in close proximity to Railway Station; returns last year £1,959; single-fronted shop, well fitted and stocked; rent £175; sublet £72; long lease; price £1,350 or valuation terms entertained.

5.—**ESSEX**.—Good middle-class Business with Optical connection in nice-class locality; new Station in close proximity; returns approach £3,000; Optical about £400; attractive shop; stock and fixtures worth about £1,150; new lease at £130; further details on application.

6.—**WIMBLEDON**.—Drug Store with Kodak Agency; returns for 1932 estimated at £1,000; lock-up shop; stock and fixtures worth about £300; rent £60; long lease; option to purchase property; scope for increase under qualified management; offers invited.

7.—**ILFORD** (near).—General Retail and Dispensing Business; established 12 years; net profit about £4 weekly; double-fronted lock-up shop; rent £1 weekly, including rates; renewable lease; vendor wishes to sell at once and will meet a purchaser reasonably; possibly part payment would be entertained.

8.—**NORTHERN CITY**.—Cash Retail and Dispensing Business, with N.H.I. about 100 monthly; returns last year about £3,000; centrally situated; moderate rent; long lease; price to be arranged.

9.—**BIRMINGHAM** (Suburban).—Good-class Retail and Dispensing Business; returns between £25-£30 weekly during trade depression, normally between £35-£40; good living accommodation; new lease at £75 per annum; more Private Dispensing than N.H.I.; price £600, or near offer.

10.—**MIDLANDS**.—Old-established Business for sale through bereavement; returns last year £2,100; rent £100; lease 15 years to run; lock-up pharmacy; double-fronted corner shop in main road; price to be arranged.

11.—**WARWICKSHIRE**.—Light Retail and Dispensing Business, with Medicated Wine Licence; returns last year exceeded £1,800; accountant's figures; double-fronted shop, nicely fitted and stocked; very comfortable living accommodation; freehold may be purchased or lease would be granted at about £80 per annum; price £1,200, for which very good value is offered.

12.—**WIRRAL**.—High-class Retail and Dispensing Business, with Optics; returns last year £2,522 (Optics £400); double-fronted corner shop; living accommodation; private entrance; garage; freehold may be purchased; rates £35; practically no opposition; price to be arranged.

13.—**SUFFOLK**.—Unopposed Country Retail Business in picturesque locality; Wine Licence; returns under management average £1,400 per annum at good prices; increasing; very old established; beautiful garden, with vinery; old-fashioned house; vendor owns the property and will grant a lease at £60; stock and fixtures worth between £500 and £600; early sale desired.

14.—**SOUTH-EAST ESSEX** (Industrial Area).—General Retail and Photographic Business, with N.H.I.; returns under aged manager £15 weekly, plus N.H.I. £10 monthly; scope for increase under energetic supervision; double-fronted corner shop; living accommodation; net rent about £45 per annum; held on renewable lease; price about £400 or £50 goodwill, stock and fixtures at valuation.

Chemists' Transfers, Valuations for Sale, Stocktaking & Probate

Special Terms for Income Tax Valuations and Preparation of Accounts by Qualified Accountants.

BERDOE & FISH

41 ARGYLE SQ. KING'S CROSS, W.C.1

ONE MINUTE FROM KING'S CROSS AND ST. PANCRAS STATIONS.

Chemists, Valuers and Transfer Agents

PHONE
TERMINUS 3574
ESTABLISHED
11870

1.—SOUTHERN COUNTY.—Select Family and Dispensing Business, charmingly situated and easily worked; turnover £1,600, increasing; excellent modern house, with large, well-stocked garden, garage and quarter-acre of land adjoining; price for business and freehold property £3,850; suitable for anyone with capital seeking a pleasant country life.

2.—EASTERN COUNTY.—Light Middle-class Cash Retail; in large town; returns over £1,550, good profits; low rent; lock-up shop, nicely fitted and well stocked; price £800.

3.—BIRMINGHAM.—Good-class Retail and Dispensing Business; in pleasant suburb; main-road position; returns last year £1,350; plenty of scope; rent £75; good house; well stocked; price £600, or first reasonable offer.

4.—LONDON, N. (15 miles out).—Good-class Business in growing residential district and with excellent prospects; returns, under manager, £1,568; hands-on modern pharmacy; good house; large garden; price £1,250.

5.—CHESHIRE—Good-class Semi-country Business, with Optics; returns £1,725; net profit £395; stock and fixtures worth approx. £900; illness necessitates early sale; price £1,100, or £875 without Optics.

6.—LIVERPOOL.—Light Cash Suburban Business, returning under manager £1,450; gross profit £550; splendid position on new housing estate; scope for increase; modern fitted pharmacy, well stocked; long lease; price about £700.

7.—ESSEX (Near Coast).—Well-established Mixed Chemist's Business; good Photo connection; returns over £2,100; books audited; low rent; on lease; good position; price £1,250.

8.—DERBYSHIRE.—Old-established Business in busy town; returns average £1,350; good profits; rent £52; corner shop; well fitted, fully stocked; no near opposition; price £800.

9.—LONDON, E.—Cash Retail and Prescribing, with small N.H.I.; returns £1,500, plus N.H.I.; rent £54, on lease; small living accommodation; net profit £350; ill-health necessitates sale; offers invited.

Special Notice.

BUSINESSES WANTED.

Having successfully negotiated the sale of several businesses lately, we are urgently in need of sound concerns in all parts, and particularly in LONDON SUBURBS, HOME COUNTIES, SOUTH COAST, MIDLANDS and WEST OF ENGLAND where a net profit around £500 a year can be shown; we have a large number of genuine cash buyers waiting to be suited and are able to effect quick sales without publicity. Correspondence cordially invited from intending Vendors which will be treated in the strictest confidence.

VALUATIONS FOR SALE. PROBATE & STOCKTAKING PERSONALLY CONDUCTED BY PRINCIPALS.
SPECIAL LOW RATES FOR STOCKTAKING AND PROBATE.

Ernest J. George Sentinel House, Southampton Row, W.C.1 Telephone: Holborn 9200
Tudor House, Walsall Telephone: Walsall 3774
Tele. "Earnest, Walsall"

Prospective purchasers of businesses (all descriptions) are invited to communicate with the full assurance that all confidences will be strictly observed. Service and Assistance rendered without obligation or expense.

The following businesses have in the main been visited, and are recommended to appropriate would-be purchasers.

(C1) SOUTHERN COUNTY.—Owing to contemplated retirement two old-established businesses are offered for sale by private treaty; the aggregate returns for the last complete financial year were slightly under £7,000 and there is no immediate opposition; living accommodation is available if required, but is at present sub-let; the rentals of both premises are low, and new 21-year leases will be granted to an approved lessee; the surrounding district is a middle-working-class residential one, the trade carried out being almost wholly for cash. Further particulars will be disclosed in strict confidence to bona fide enquirers upon receipt of Bankers' or other satisfactory references.

(C2) TEES-SIDE.—Old-established retail business with wine licence, for quick disposal; returns for 1931-32 financial year £3,229; premises excellently positioned; low purchase price which includes a heavy stock. Further particulars in strict confidence to genuine prospective purchasers.

(C3) CARDIFF — EXCEPTIONAL OPPORTUNITY.—Attractive modern pharmacy, with excellent living accommodation, can be purchased on very reasonable terms; owner prepared to consider a part-payment arrangement under approved circumstances; turnover for 1931 financial year upwards of £2,000; small optical connection, which should be capable of considerable development; no near opposition; premises situated in good-class residential district; Chemists contemplating the purchase of a business in this area are strongly advised to write, in confidence, for full details, which will be disclosed to genuine prospective purchasers; the business has been personally visited and is well recommended.

(C4) NORFOLK—MARKET TOWN.—Very old-established business, with large self-contained house attached; returns for last financial year upwards of £2,000; this year's figures show a slight increase over the previous corresponding period; rent, £80 per annum; purchase price for quick sale, goodwill £250, plus value of stock and fixtures (estimated at £1,250 all-in).

(C5) LONDON, W.—Established retail and dispensing business showing consistent progress over the last three years; present returns upwards of £1,800 per annum; low rent and rates; good private dispensing and prescribing; purchase price approximately £1,000.

(C6) SUSSEX.—Family and dispensing business in small growing town, with house attached; turnover for last financial year as per Accountants' figures, £1,305; net rental of shop and house, after allowing for sub-let, £90 per annum; value of stock and fixtures (£500-£550), will be accepted for quick sale (no goodwill asked).

(C7) WORCESTERSHIRE.—Working-class business at present under management, showing average returns of £20-£25 weekly; N.H.I., £5-£7 per month (under late proprietor the returns, including N.H.I., averaged over £40 per week); rent £52 per annum; good living accommodation with garden; purchase price asked £160, plus stock at valuation.

(C8) SHROPSHIRE.—Drug store with small house, suitable for one, or two, persons; inclusive rental £45 ros. per annum; present returns approximately £10 weekly; purchase price (all-in) £300; scope for development.

(C9) BOURNEMOUTH.—Attractive modern pharmacy, with good self-contained flat; returns for last six months average approximately £23 weekly, and are showing steady increase; further particulars will be forwarded to genuine likely purchasers upon application.

(C10) MIDLANDS COUNTY BOROUGH.—Cash business with good photographic connection and N.H.I.; returns for 1931-32, £1,800; rent and rates, £67, which includes 6-roomed house with garden; this business represents a particularly good profit-earning investment, and should be capable of further increase under personal proprietorship.

(C11) BIRMINGHAM.—Exceptional opportunity to acquire established business in good-class residential suburb owing to financial circumstances; turnover for 1931-32 approximately £1,350; good living accommodation containing dining-room, lounge, kitchen, three bedrooms, etc.; rent £75 per annum; a new lease will be granted to an approved lessee; good opening for optics if desired; price for quick sale £600 or near offer, inclusive of stock and fixtures.

(C12) SUFFOLK COAST.—Unopposed business with living accommodation, for disposal together with freehold property, at a reasonable figure; present returns approximately £1,200 per annum, with genuine scope for increase if full possibilities are exploited; the business has recently been valued, and authentic figures are therefore available as a basis for negotiation; net profits for last financial year approximately £350. Further particulars will be forwarded in strict confidence to bona fide applicants.

(C13) SUSSEX COAST.—Old-established retail business for disposal owing to recent death of proprietor; turnover for last financial year approximately £1,200, but there should be undoubted scope for increase under new energetic ownership; living accommodation; rent, £65 per annum; purchase price £950.

COMPREHENSIVE VALUATION SERVICE FOR ALL REQUIREMENTS.

SALES SALES SALES

LET US SELL YOUR BUSINESS

ORRIDGE & CO.

**56 LUDGATE HILL,
LONDON, E.C. 4**

Telephone: CITY 2283

ESTABLISHED 1846

are in a position to introduce immediate purchasers for businesses of all classes and sizes in every part of the country.

For nearly 100 years we have specialized in the sale of Chemists' businesses and can undoubtedly render you a service which has the benefit of long and varied experience.

FREE advice on all matters relative to sale.

NO SALE NO PAY

ORRIDGE'S ORACLES

No. 3

•
A vendor chemist of Kent
On selling his business was bent.
Said he without fear
My course is quite clear—
So to Orridge full details he sent.

SALES can be negotiated with privacy and Vendors can be assured that their confidences will be strictly observed.

Long waiting list of bona fide Purchasers with capital ranging from £500 to £10,000.

S. F. CLARK, F.N.A.A. 'Phone: Prospect 3366
CHEMISTS' VALUER & TRANSFER AGENT
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 Gives personal, prompt, and economical service in respect of
VALUATIONS for all purposes, **STOCK-TAKING** and **AC-**
COUNTANCY for Income Tax requirements. **BUSINESS**
TRANSFER a speciality.
All communications treated confidentially.

E. BROWN, L.N.A.A.
CHEMISTS' STOCKTAKER AND VALUER
 21 Davenport Rd., Hazel Grove, Stockport
Stocktaking and Valuations for Income Tax,
Purchase, Sale, etc., carefully conducted.
PERSONAL SERVICE ENQUIRIES INVITED

BUSINESSES FOR DISPOSAL.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

BUCKS.—Drug Stores in main shopping thoroughfare of busy industrial town; large double-fronted shop, house of seven rooms; rent £200 on long lease; very profitable turnover in own specialities; offers scope for qualified, good opening for optics; stock and fixtures valuation entertained. Letters, "Cascara," 57 Wellington Road, Ealing, W.5.

CUMBERLAND COAST.—Good-class Retail; returns average approximately £1,000 per annum; rent £52 per annum; first-class living accommodation; excellent opportunity for energetic man; purchase price £650, all in. "Chemist," c/o Geo. Little, Chartered Accountant, 400 Moorgate Station Chambers, London, E.C.2.

EAST COAST (one hour from London).—High-class Pharmacy, main road corner shop; well fitted in oak; long lease, moderate rental; stock worth £150; fixtures cost £500; all at for £350, of which £100 could remain; a splendid opportunity for a smart man; good reason for selling. 356/5, Office of this Paper.

HERTFORDSHIRE.—Good-class Retail and Dispensing; turnover £1,200, increasing; price £675. Particulars 353/39, Office of this Paper.

LEEDS.—Unopposed Suburban Business, working-class, old-established, Kodak and Rexall, good N.H.I.; five-roomed house attached; property £750; goodwill and fixtures £300; stock at valuation £400 to £450; books audited, show a comfortable living with scope for increase under personal supervision; £850 cash will secure. Marsden, Valuer, 29 Oakwell Crescent, Leeds. Tel.: Roundhay 62,890.

LIVERPOOL.—Lock-up Pharmacy in main road; now under management; profits £250 yearly to owner-manager; room for improvement; low rental; secure tenancy; sound reasons for disposal; accept £200 for goodwill and excellent fixtures; stock optional; no agents. 354/21, Office of this Paper.

LONDON (S.W. Suburb).—Well-fitted Shop, with living accommodation; long lease at reasonable rent; turnover averages £1,575 per annum under management; should increase considerably under personal control; price £250, plus stock at valuation; part purchase might remain. Preston & Partners, 29 Ludgate Hill, E.C.

LONDON, S.W.1.—£1,000; same hands 15 years; retiring; flat above and shop both central heated; stock, fixtures, goodwill and lease; suit Chemist and wife or company; cash buyers only replied to; books audited; Dispensing can be increased, also Panel, Photographic, etc., added. 353/27, Office of this Paper.

YORKSHIRE.—Agricultural, Family and Photographic business; large turnover at good profits; capital required, about £4,000; owner wishing to retire; particulars to buyers only. 355/12, Office of this Paper.

YORKSHIRE.—Old-established Shop in main thoroughfare and branch doing over £4,000 per annum; Kodak Agency, Full Wine Licence; good N.H.I. at branch; either or both at valuation or terms; full details on receipt of references. 354/20, Office of this Paper.

A PRIVATE Chemist has a golden opportunity to offer, with no opposition; a Business, including Post Office, Library, Stationery, Optics; 28-year lease; Panel 500 per month; takings £25 per week; owner leaving London for family reasons; price, inclusive, £750; living accommodation. 354/15, Office of this Paper.

HAIRDRESSERS' Sundries Factory for Sale as a Going Concern; turnover £4,000 per annum, or an offer to invest capital with position as working Director would be considered. 215/702, Office of this Paper.

The ASSOCIATION of MANUFACTURING CHEMISTS,
 LIMITED
(Business Agency, Transfer & Valuation Department)
KIMBERLEY HOUSE, and at EXCHANGE CHAMBERS,
 Holborn Viaduct, LONDON, E.C.1 2 Bixteth St., LIVERPOOL
PARKIN S. BOOTH, Valuer. Tele.: CITY 1261-2-3-4.
VALUATIONS. SALES OF BUSINESSES. STOCKTAKINGS.
Enquiries Invited.

LEASE WORTH THE MONEY.—Drug Stores, with good Side Lines; lock-up; one room and garden; main road; rent £52; taking £12 to £14 weekly; excellent scope for increase; growing neighbourhood; without opposition; exceptional opportunity for qualified Chemist; £260 a.a., including clean stock. "T," 7 Whitehall Road, Thornton Heath, Surrey.

OLD-ESTABLISHED Herbalist, Druggist, &c.; shop premises in splendid position busy shopping centre, London, N.W.; reasonable rent; lease 10 years; genuine reason for disposal; good living accommodation; price, including stock, fixtures, &c., £2,500; fullest investigation. Further information, Pawley & Malyon, Incorporated Accountants, Finsbury Court, Finsbury Pavement, E.C.2.

£120 OR NEAR OFFER purchases Herbal Drug Stores in prominent position South London; price includes lease, stock, fittings, goodwill; £8 weekly clear profit after all expenses; rent 27s. weekly inclusive, domestic affairs cause of sale; guaranteed living for life; trial everything shown; 'phone New Cross 1739. 119 Queen's Road, Peckham.

£225 SECURES.—Drug Store busy main road, London, E. district; well-fitted shop, modern front; long lease at £100 per annum; rates £26; excellent living accommodation; neglected; plenty of scope for qualified man; value in fittings and stock; genuine purchasers only, please. 356/37, Office of this Paper.

BUSINESSES WANTED.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

LONDON AND DISTRICT.—Sound Business required by Private Chemist; small returns not objected to if there is sufficient scope to increase; house not essential; can negotiate immediately. 215/704, Office of this Paper.

MANCHESTER AND DISTRICT.—Business required by private Chemist in thickly-populated area, preferably one which has been neglected; living accommodation essential. 355/7, Office of this Paper.

A SOUND Dispensing and Family Retail Business, with Photography; must have good Panel Dispensing; is required, for preference in good market town in Southern Counties; turnover about £3,000 per annum, with good profits; house attached essential. Send fullest particulars and price required to Chemist, 28 The Avenue, Moordown, Bournemouth.

CHEMISTS' Business required by private client showing upwards of £1,000 per annum net profit; situated preferably but not essentially in Midlands. Cash available for immediate purchase of suitable business. Particulars in confidence to "Chemist," c/o Thomas Brittain & Co., Chartered Accountants, 23 Colmore Row, Birmingham.

PHARMACIST seeks a sound business in London district, Middlesex for preference; present turnover should not be less than £50 weekly; confidence respected; banker's reference provided. Write now full particulars in first instance to 355/28, Office of this Paper.

REQUIRED Urgently, Sound Business in the Midlands or South (North considered) showing a net profit of not less than £500-£600 per annum; full cash payment will be made immediately for purchase of suitable business; £2,000-£3,000 available. 215/705, Office of this Paper.

WANTED, a First-class Business, with good Photographic connection; turnover from £3,000 to £5,000; Southern County for preference. Particulars in confidence to No. 354/26, Office of this Paper.

WANTED, Sound Business, with living accommodation; turnover about £1,000 to £1,500; capable of increase under personal; Southern County preferred. Please send full particulars in strict confidence to 354/33, Office of this Paper.

£6,000 AVAILABLE by Private Chemist who is open to purchase one or more businesses in or near to London; two businesses with combined turnovers of £6,000/£9,000 will be well suitable. All correspondence, etc., in strict confidence to 215/703, Office of this Paper.

SALE BY AUCTION.

SALE ROOMS, 5 LITTLE BRITAIN (close to G.P.O.),
LONDON, E.C.1.

PRACTICALLY new range of CHEMIST'S SHOP
FITTINGS, 10-ft. Drug Run, Wall Showcases,
glass-fronted and other counters, Silent Salesmen,
Mirrors, Cash Tills, Office Furniture, Typewriters,
Chairs, &c.

B. NORMAN & SON

Will Sell by Auction, as above.

Wednesday Next at One.

View day prior. Catalogues on application.

TENDERS INVITED

THE DIRECTOR-GENERAL,
India Store Department, Belvedere Road, Lambeth,
London, S.E.1, invites tenders for:—

SCHEDULE 1. Sodii Salicylas B.P., &c.

Schedule 2. Essential Oils, &c.

Schedule 3. Bismuthi Subnitras, Carbonas, and Sali-
cylas B.P.

Schedule 4. Iodum and Iodoformum B.P.

Schedule 5. Santoninum B.P.

Schedule 6. Lint, Plain.

Schedule 7. Cresol Saponified.

Schedule 8. India Rubber Goods: Ice bags, air beds,
hot-water bottles, &c.

Schedule 9. Bottles, green, amber and blue.

Samples required with tender for Schedules 7, 8 and 9.
Tenders due February, 1933.

Forms of tender obtainable from the above at a fee
(which will not be returned) of 5s. for each Schedule.

PREMISES TO LET.

BLACKPOOL.—Double-fronted Empty Shop; with good living
accommodation; 8 years Chemist; no ingoing; extensive
residential area and visitors' district; main street. Also one at
North Shore. Bonny, 189 Church Street, Blackpool.

BULL RING, GRIMSBY.—To let, Shop, fitted in oak, for Chemist;
no stock; lately carried on as Drug Store; good opening for
N.H.I., Optics and Tobacco. Over 6,000 orders for D. and P., etc.,
handed in this last summer; old lease will be transferred or new
one granted; ingoing, all at £150. Apply to Owner, G. D. Atkin-
son, The Bon Ton, Old Market Place, Grimsby. Tel. No.: 2227.

BUSHEY.—Opening for Chemist; rent of shop and flat £78 per
year, tenant paying rates; one shop only available in a parade
of shops serving working-class and better-class houses without
opposition. Apply to the Agents, W. S. Weller & Son, Monmouth
House, High Street, Watford. Telephone: 3374.

EARL'S COURT, S.W.5 (Richmond Road).—Large Shop, used as
Chemists for at least half a century; room behind, about 5-6
rooms over, and basement; vacant possession of whole can be
arranged; rent only £130 per annum; new lease; shop fixtures,
&c., to be purchased. Keys, Rogers, Chapman & Thomas, 125
Gloucester Road, S.W.7.

GROUP of Splendid Shops to be Let; commanding central posi-
tion between two congested shop areas; parking for 60 cars
on site, and large trade already established; excellent opening for
Chemist and Druggist; very low rent to highest-class traders.
Plans, etc., from E. Horace Thompson, F.S.I., High Pine Close,
Weybridge.

PATENTS.

PATENTS AND DESIGNS ACTS, 1907 TO 1932.

NOTICE is hereby given that Heinrich Ludvig Schlott,
of 9-11 Katarinavagen, Stockholm, Sweden, seeks
leave to amend the Specification of the Application for
Letters Patent No. 380,546, for an invention entitled
"Improvements relating to cold and heat retaining
vessels."

Particulars of the proposed amendment were set forth
in No. 2295 of the Official Journal (Patents), pub-
lished on January 11th, 1933.

Any person, or persons, may give Notice of Opposi-
tion to the amendment by leaving Patents Form No. 19
at the Patent Office, 25, Southampton Buildings, Lon-
don, W.C.2, within one calendar month from the date of
publication of the said Journal.

M. F. Lindley,
Comptroller-General.

PARTNERSHIPS.

PHARMICIST (25), single, abstainer, 8 years' retail experience
with large multiple firm; hard-working, reliable and holding
first-class references; has £200 capital; would entertain partner-
ship with any person with further capital; a unique opportunity
for anyone who can do with the services of a really live business
builder; no triflers, please. 356/13, Office of this Paper.

SPLENDID OPPORTUNITY for capable man in old-established
Business; experience in Perfumery and Hairdressers' Sundries
an advantage; investment £1,000/£2,000. 215/701, Office of
this Paper.

£100.—QUALIFIED Chemist (age 30, married) with this sum
available to invest desires Partnership or Manage-
ship in London or Suburban Business; at present managing West
End business (3½ years) and is accustomed to buying, keeping books
and full control; advertiser is also Qualified Optician (J.C.Q.O.).
F. E. C., 41 Fairholme Road, London, W.14.

AGENCIES.

IRELAND.—Established Representative in Ireland—Drugs, Sun-
dries, and Proprietories—would like to get in touch with
known Manufacturers with view to Representation or Distributing
Agency. 355/24, Office of this Paper.

FIRST-CLASS Salesman and Smart Assistant, with cars and
strong connection Chemists, Stores, Hairdressers; London,
Home and South-Eastern Counties; open to represent good firm on
commission basis; unimpeachable references. P.C.B. 62/2, Office
of this Paper.

TO MANUFACTURERS of Proprietary Goods not satisfied with
present returns from the North, write at once to the
Northern Sales & Distributing Agency, 9 Waterloo Street, Leeds,
who have Expert Salesmen, with old-established connection
amongst Chemists, Stores and leading Hairdressers; office, ware-
house and facilities for handling and distributing depot stocks;
sales and service guaranteed.

APARTMENTS.

**WHEN YOU COME TO LONDON STAY AT THE HAMPDEN
RESIDENTIAL CLUB.**

FOR GENTLEMEN. Hampden Street, N.W.1. Close to King's
Cross and Euston. 300 bedrooms. 12s. 6d. to 25s. per week,
including baths, attendance and boot cleaning. All meals à la carte
in dining room. Moderate tariff. Large Club Rooms, Library,
Billiards Room, Reading Room and Study for Students. Illustrated
Prospectus from Secretary. Museum 3424.

SITUATIONS OPEN.

RETAIL (HOME).

6s. for 40 words or less; 6d. for every additional 10 words
or less, prepaid. (Box No., 1s. extra.)

LONDON, N.—Wanted, Manager, about 24, single, quick Counter
trade, Photographic, Dispensing and N.H.I. 356/21, Office
of this Paper.

LONDON, N.E.—Assistant, qualified; lady or gentleman; quick and
accurate Dispenser (N.H.I.); also part-time Assistant, quali-
fied preferred; state salary (must be very moderate), age, &c.
(letters not answered in five days respectfully declined). 356/38,
Office of this Paper.

MANCHESTER.—Qualified Manager required for about February
1; small branch shop in working-class district; must be
used to N.H.I. and the Photographic trade. 355/10, Office of
this Paper.

S.E.1.—QUALIFIED, good window-dresser and persuasive
salesman required by multiple firm of Dispensing
Chemists; hours 1 p.m. till 8 p.m.; early-closing day Thursday;
no Sunday duty; 40s. per week. P.C.B. 62/7, Office of this Paper.

WEMBLEY DISTRICT.—Junior Assistant, male, unqualified, age
about 20, Window-dressing, Dispensing, knowledge of Photo-
graphy; good Counter hand; full particulars, wages required, &c.
356/35, Office of this Paper.

ASSISTANT required, accurate Dispenser, Window Dresser; quick
Retail trade; permanency for reliable man. State age, height,
salary required, with references, to Rowlands, Ltd., 2 Hesse Road,
Hull.

ASSISTANT Wanted (qualified). Apply, stating age, experience
and salary required, to 215/706, Office of this Paper.

AT ONCE.—Qualified Assistant required to manage, single-handed,
new branch in North London; must be honest, obliging, tact-
ful with customers and not afraid of work; moderate salary, plus
commission; permanency to suitable applicant. Reply, with full
particulars, to 355/38, Office of this Paper.

GENTLEMANLY Assistant, with J.C.Q.O., tall, young, with ideas in Window Dressing; encouragement given to up-to-date ideas in business building. Apply, with full particulars and state salary required, Cook & Bushby, 88 Guildford Street, Chertsey, Surrey.

IMMEDIATE—Lady Assistant (21). State experience, height, wages required and references. Gould, Chemist, Cheam. Applications not answered in 3 days respectfully declined.

JOSEPH WALLWORK & SONS, Chemists, of Tyldesley, near Manchester, require a Junior Assistant. Full particulars and references in first instance.

LESTERS, The Rexall Chemists, Nuneaton, require shortly really good Dispenser; age 24-30; permanency; really good prospects for energetic, reliable man. Please send copies references, photograph, height, salary required, state whether married, date disengaged, to L. H. Lester, 2 Market Place, Nuneaton.

PART-TIME Junior (male) required from 6.30 p.m. to 8.30 p.m.; salary 1s. 6d. per hour; Panel, Dispensing; easy berth; working class; S.E. district. State references, etc., 353/38, Office of this Paper.

QUALIFIED Assistant for Good-class Business; age about 30. Write, giving full particulars of experience, age, salary required. Also enclose photograph. A. Procter & Son, Ltd., 6 Station Parade, Eastbourne.

QUALIFIED man required. Apply to Leads, 192 High Street, Homerton, E.9.

QUALIFIED, single preferred (Birmingham), capable Manager, Window-dresser and Prescriber wanted; state full particulars, lowest wage, &c.; permanent to right man. 355/14, Office of this Paper.

UNDER BUYER (under 40) for Drug Department West-End Store; must be qualified and have good knowledge of brushes—nail, tooth, &c.; salary £208, plus commission. Employment Services, Ltd., 80 Regent Street, W.1.

UNQUALIFIED Assistant (male) wanted at once for High-class Country Business, about 1½ hours from London. Applications unanswered in 7 days respectfully declined. 355/32, Office of this Paper.

UNQUALIFIED Assistants required. Please apply Taylors (Cash Chemists), 155 Praed Street, Paddington, Saturday morning 9.30, or by letter to G. W. Todd, 9, Woodfield Drive, Gidea Park.

UNQUALIFIED, immediately, about 25; Dispenser, Window Dresser; permanency. Write, or call Sunday, Golden, 59 Hill-side, Stonebridge Park, N.W.10.

WANTED, an Unqualified Assistant, for West End Pharmacy, for four evenings a week from 7 till 12; one used to usual West End trade. Apply 354/27, Office of this Paper.

WANTED, immediately, Young Qualified (Temporary) Assistant; used to brisk N.H.I. Business; situated in working-class district S.W. London; reference essential; wage £2 10s. Phone Battersea 6021, or write 355/34, Office of this Paper.

WANTED, near Birmingham, Qualified Lady (Young) for few weeks. Apply, with full particulars and salary, to 356/17, Office of this Paper.

WHOLESALE.

A VERY ABLE GENTLEMAN is wanted as Special Representative by a London Toilet Manufacturing House marketing a highly competitive range of Toilet Goods at cut prices in the southern half of England. The position is one for a man of outstanding capabilities possessing a large following, and able to command the ear of numerous buyers throughout the territory, thereby securing a substantial turnover at once. A salary of £6 per week, plus commission and expenses, will be paid, and a substantial guaranteed minimum drawing account given. There are unusual opportunities in the future for one who can command substantial figures and will organise the ground in a sound manner. Write, giving full details of experience, in confidence, to 356/28, Office of this Paper.

ABLE, Energetic Representative required; Manchester district; Chemists, Hairdressers Trade; salary and expenses; carrying leading Toilet Line, supported largest advertising appropriation in its class; permanent, progressive position; extensive territory Manchester centre. Apply, stating age, experience in Lancashire, salary required, to Box 177, c/o C. Mitchell & Co., 1 Snow Hill, London, E.C.1.

OPTICIANS (Wholesale), London House, require Representative on commission basis for Scotland and North Ireland only; applicants must already represent good wholesale chemists' or druggists' house. Apply 354/17, Office of this Paper.

PROCESS Worker required (temporary) in laboratory by Wholesale London Druggists; used to Steam Laboratory and the Manufacture of Galenicals. Apply P.C.B. 62/12, Office of this Paper.

REPRESENTATIVES required to carry as a side line, on a 15 per cent. commission basis, a Toilet Preparation assured of good sales; districts to be covered are Southern and Western England, Northern Counties and South Wales; state territory covered. 354/32, Office of this Paper.

REPRESENTATIVES covering England, Scotland and Wales wanted to carry an Absolutely Unique Line on commission; very small to carry; being original, will not clash with other lines. Apply for particulars, 356/24, Office of this Paper.

SALESMEN on commission required, in all parts of the country, by North of England firm to sell an exceptionally well-packed series of Packed Goods for Chemists only; attractive proposition granting district agencies; liberal commission and excellent prospects. Applicants must state in confidence age, existing commissions, &c., 356/12, Office of this Paper.

SALESMEN WANTED

to sell our new line "Alluhr," the only safe depilatory; used and endorsed by leading actresses and film stars; product is extensively advertised; experience with chemist and hairdresser trade necessary; highest commission, expenses and drawing account to right man; with our assistance men can earn substantial amounts. For further details write to Britannia Laboratories, 13 Little Titchfield Street, London, W.1.

TRAVELLER required, London, part time, on commission and part expenses basis, by a well-known firm of Toilet Article Manufacturers; must have a first-class connection with the best chemists. State lines carried, in confidence, 353/33, Office of this Paper.

TRAVELLERS Wanted to carry good repeating proprietary (medicinal), commission 10 per cent., must already represent reputable firm with first-class connection and own car; state fullest particulars, including exact counties covered, references, whom now representing (in confidence), &c. 355/16, Office of this Paper.

YOUNG, Energetic, Qualified Works Chemist required by Manufacturing Chemists of Pharmaceutical Products specialising Pills and Tablets. Write, stating experience, references and salary required, 354/29, Office of this Paper.

SITUATIONS WANTED.

RETAIL (HOME).

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

A.A.A.A.—**QUALIFIED** Scot (26); single; 9 years' experience; desires change; excellent references; comprehensive experience; thoroughly trustworthy. "Pharmacist," 9 Endsleigh Gardens, W.C.1.

A.A.A.—**ADVERTISER**, unqualified; tall; 19 years' experience; abstainer; permanency or part-time; now free. Alexander, 189 Southampton Street, S.E.5.

A.A.A.—**QUALIFIED** (25); of good address; experienced Dispenser, Counter, Window Dressing; Photography, &c. M.P.S., 55 Macoma Road, S.E.18.

A.A.A.—**QUALIFIED** (23); smart and energetic; desires post as Manager or Assistant; first-class experience; excellent testimonials; free immediately. Freedman, 31 Francis Street, Leeds, 11.

A.A.A.—**QUALIFIED** (27), excellent experience West End Dresser, and Suburbs; Photographer, &c. 3 St. James' Mansions, West End Lane, N.W.6.

A.A.—**CAPABLE** Assistant (full or part time); Dispensing, Counter, Windows, Prescribing; abstainer. Harries, 3 Cancell Road, S.W.9.

A.A. **QUALIFIED** Manager, 38, of proved ability, highly successful Prescriber and business builder, seeks responsible position London suburbs; thoroughly conscientious; quick and capable, with good personality; experienced all branches modern Pharmacy; sole charge; keen salesman. 355/29, Office of this Paper.

A.A.—**RELIABLE** Assistant (24); highly recommended all branches; Bristol references. Williams, Holly House, Wotton-under-Edge, Gloucester.

A.A.—**UNQUALIFIED** Assistant (39) desires permanency; reliable Dispenser, good Salesman and Window Dresser; town or country; well recommended. "Chemicus," c/o Mr. Brewster, Henry Street, Rugby.

A.—**P.H.C.** seeks post as Assistant to Chemist-Optician; facilities for Optical experience considered as part salary. 356/4, Office of this Paper.

A.—**QUALIFIED** (22) requires position immediately; anywhere; very moderate salary; capable and trustworthy; highest references. Greenberg, 62 Park Street, Grimsby.

A.—TRUSTWORTHY Manager or Assistant, qualified, 24 years; experienced in all departments; anywhere, North preferred. J. Benn, 13 Mayor Avenue, Blackpool.

A CAPABLE all-round Assistant desires relief or permanency. Dispensing, counter, Photo., &c.; age 32; first-class experience and references. M. J., 13 Royd Villas, Hebeon Bridge, Yorks.

A PART-TIME Situation wanted (London or Suburb) by a Male Assistant; 6 years' West and East End London experience; excellent references. Smith, 48 Ritchings Avenue, E.17.

A QUALIFIED Experienced Manager, disengaged, desires permanency; London or Suburbs; moderate salary. Davies, 109 Alexandra Drive, Surbiton, Surrey.

A N UNQUALIFIED Assistant; good appearance and address; preferably part time with N.H.I. Dispensing; keen salesman. Young, 32 St. Mark's Road, Dalston.

A SSISTANT, disengaged; exceptional Dispensing experience; tall; 22; referred Chemistry in Final. Dennis, Upper Headland Road, Paignton.

A SSISTANT; Dispenser; quick and accurate, N.H.I. and Private; Windows, Photography; age 40; height 6 ft. Statem, 16 Northwood Road, Highgate.

A SSISTANT or Locum, unqualified, over 25 years' first-class all-round experience; references. Gall, 53 Cambridge Street, Norwich.

A SSISTANT or Manager (unqualified); all-round man; not afraid of work; proprietor's interest studied; 7 years last situation as manager; disengaged through death of proprietor; age 38; married. Advertiser, 9 Penford Street, Camberwell, S.E.5.

A SSISTANT; Part I; tall, reliable, accurate Dispenser, good appearance and address; highest reference; South or South-Western England preferred. Kemp, 80 Wells Road, Bath.

A SSISTANT; unqualified; with 30 years' experience in Dispensing and General Retail; disengaged. Harris, 24 Link Road, Edgbaston, Birmingham, 16.

A SSISTANT, unqualified, 25, tall, good address; 9 years' Dispensing, Counter, Photographic; London only. S. R. F., 61 Ringmer Avenue, S.W.6.

A SSISTANT, unqualified, 23, desires post immediately; experienced all branches; references excellent. P. A. J. Baker, Chudleigh, Harepark, Alcombe, Minehead, Somerset.

A SSISTANT (22), tall, desires Post; 3 years Provincial, 1½ years London, 3 months' high-class holiday resort experience; conversant with N.H.I. and Private Dispensing, Photographics and Counter Work in all departments; excellent references. 354/23, Office of this Paper.

A SSISTANT (22), unqualified, seeks situation; 8 years' thorough experience High-class Dispensing and Counter. Cooper, 31 Princes Street, Tunbridge Wells.

A SSISTANT (23) years; quick, accurate Dispenser; with 6 years' experience; passed all sections except one for F.B.O.A.; capable Refractionist; desires situation; Manchester preferred. T. Knott, 1 Sadler Street, Manchester, 14.

CHEMIST and Druggist, with extensive Managerial and Directive experience, is available for position of responsibility where comprehensive knowledge of the Retail Trade is essential. Working Partnership with Private Chemist or Small Company, involving capital investment, will be considered; references available; London and district preferred; advertiser 35. 356/26, Office of this Paper.

"CONFIDENTLY recommend him to anyone requiring Manager of ability and initiative," "thoroughly capable," from references; qualified; 29, tall; 14 years' experience, including management. Meyrick, 41 Gordon Street, Coventry.

EXPERIENCED modern Pharmacy and Salesmanship; Agricultural, N.H.I. Dispensing, Photography and mixed general business; 5 ft. 10 in.; good address; middle age; qualified; North or Midlands preferred. "Chemist," 1 Borragh Green Lane, Ripon.

HALL Qualified Lady Dispenser; thoroughly experienced and capable in all branches of the business; excellent references; disengaged. Prince, 20 Denbigh Road, W.11.

LADY Assistant would like to dress Chemists' windows; has many attractive ideas; will also assist on Counter at or for any time; terms very moderate; London only. P.C.B. 62/13, Office of this Paper.

LADY Chemist (33), 11 years' London experience; accustomed to Management of Retail; capable and energetic worker; excellent references; middle or working-class in London preferred. 355/27, Office of this Paper.

LADY Dispenser-Book-keeper requires post; excellent experience in Private Practice and Hospital Work. 354/10, Office of this Paper.

LADY M.P.S. desires permanency or Part-time with Chemist, Doctor or Institution; experienced and reliable; disengaged; near Manchester preferred. 354/24, Office of this Paper.

LADY, M.P.S., desires post; Worthing, Brighton or district preferred, but not essential; excellent references and experience; disengaged when required. Seldon, c/o Foulkes, Chemist, 99 Sackville Road, Hove, Sussex.

LADY, qualified (22), used to middle-class Dispensing and Counter trade; disengaged. Coleman, 98 Beuford Road, Kempston, Bedford.

LADY, unqualified, Pharmacy Trained, desires post; 12 years' London and Provincial experience; capable and energetic worker; good references. Box 355/23, Office of this Paper.

LADY, unqualified, desires change; accustomed to Management; 12 years' experience; Dispensing, Photographic, Book-keeping; moderate salary; London preferred. 356/36, Office of this Paper.

LOCUM or Dispenser; qualified; over 30 years' experience; disengaged; temperate; energetic; excellent references. 355/25, Office of this Paper.

MANAGER; Scot, 35; 10 years' High-class Management; wide experience; special knowledge Ciné and Photo; fluent French; married; West End, Provinces. "C.", 14 Richmond Avenue, S.W.20.

M.P.S.—THOROUGHLY experienced, highest references, requires good-class management where whole-hearted work would be appreciated; married; at liberty; abstainer; permanency or locum. Hormones, 21 Horseshoe Road, Pangbourne.

M.P.S. (23) requires post as Dispenser to Doctor, Institution; disengaged; salary £2 10s. Deuny, 37 Cliff Hill, Gorleston, Norfolk.

M.P.S. (age 35), height 5 ft. 6 in., married; qualified 10 years; experienced in all branches; steady, capable, conscientious worker; seeks sound permanency; present Managership 7 years. 354/30, Office of this Paper.

M.P.S., F.S.M.C. (26), tall, married, desires change of Managership, with or without Optics; Yorkshire preferred; 8 years' first-class experience in all branches; excellent references. 355/4, Office of this Paper.

M.P.S., F.S.M.C., J.C.Q.O., 32, tall; long experience London and District; requires post as Manager; references satisfactory. 356/11, Office of this Paper.

MR. R. B. FAIRWEATHER is open to an engagement, having finished successfully his "summer holiday relief"; day, week or month; all inquiries 286 Kingsland Road, E.8.

PART-TIME.—Any arrangement of hours, or night duty; West End; take charge; thoroughly experienced; 50, active; now free. Write "Statim," 356/25, Office of this Paper.

PART-TIME or Temporary Position required; Part II; referred Pharmacy; male, aged 23 years. J. D. H., 127 Venner Road, S.E.26.

QUALIFIED Young Lady (24), tall, smart appearance, desires post as Dispenser, N.H.I. and Window Dressing; London experience. 354/28, Office of this Paper.

QUALIFIED (34), Manager or Assistant, experienced all branches; free end January. Chemist, 50 Grove Lane, Camberwell, S.E.5.

QUALIFIED (40), excellent experience (town and country); good references; disengaged; Midlands preferred. Gibbs, The Cottage, Hampton, near Evesham.

QUALIFIED (36), married, Manager or Assistant, permanency, anywhere; excellent experience and references. Hardy, 27 Shaftesbury Road, Bath.

QUALIFIED (50); all-round experience; West End and Provinces; country or country town preferred; good Dispenser; salary moderate. 356/34, Office of this Paper.

QUALIFIED (54); Manager or Superintendent; 13 years in last situation; all-round experience; good references. 356/6, Office of this Paper.

RELIABLE Unqualified Gentleman (29 years), well educated, desires position in or near the City or South; excellent references; experienced Optician, Dispenser, Photographer, Salesman and Display. Howard, 2 High Street, Canterbury.

UNQUALIFIED, middle-aged, Dispenser to Doctor, or manage during illness; Midlands preferred; no Photography. 354/34, Office of this Paper.

UNQUALIFIED (38), married; height 5 ft. 9 in.; first class and varied experience, including West End; exceptional references; present position 7 years. Dillon, 117 Mansfield Road, Hampstead, N.W.3.

WELL-RECOMMENDED unqualified Assistant, with first-class experience in all departments of the business, requires a situation; sound credentials. "Homely," The Thwaite, Nursery Path, Hailsham, Sussex.

YOUNG Lady, with good experience in Counter Work, Toilet, Photography and Window Display, requires part-time engagement; convenient to Harrow Met. Smith, 76 Salisbury Road, Harrow.

YOUNG LADY, unqualified, over 3 years' experience, Dispensing, counter; Brighton or near. Read, 40 Norman Road, Newhaven, Sussex.

CLEAR OUT—your Old or Damaged Stock of Photo Goods
Why keep them any longer? Turn them into CASH.
I GIVE BEST PRICES for Old Films (damaged, fogged or expired dates); Packet Papers, Cards (any sizes), Old Photo Goods or Cameras. Bromide Papers. Plates (all sizes, all makes). Send any goods in the photo line. I buy all, good or bad. Cash per return. A good price for all Cameras. Send them along.
S. E. HACKETT, 23 July Road, Liverpool

YOUNG Qualified seeks post; Medium-class Trade, London; completed 4½ years similarly; energetic; thoroughly trustworthy; free immediately. "Menthol," 351/6, Office of this Paper.

£2 15S. WEEKLY. Disengaged Male Dispenser, Book-keeper, Dresser, seeks berth with doctor. Address Dispenser, 5 Pergwin Street, Trealar, Dinas, Rhondda.

WHOLESALE

A FIRST-CLASS Representative, with 15 years' strongly established connection with Wholesale and Retail Trade in London and Home Counties, requires engagement with good house. 351/25, Office of this Paper.

A STUTE Young Man, age 27, seeks situation with Wholesale House, thorough knowledge Wholesale (inside and outside), Retail and Shipping; good references. S., 17 Poynders Road, Clapham Park, S.W.4.

HIGH-GRADE Representative desires propositions from Firms, whole or part-time; has A1 connection 18 years; Stores, Chemists, Hairdressers, Wholesale and Retail and Export U.K.; splendid testimony and record; resident London. "Advance," 355/21, Office of this Paper.

QUALIFIED Gentleman (27), well educated, experienced Representative, desires progressive position with First-class House; adaptability, tact, requisite personality, appearance; medical propaganda; knowledge Therapeutics, Organotherapy; car driver; resident London. 354/25, Office of this Paper.

REPRESENTATIVE, 6 years calling on Chemists in Ireland, desires another Agency (high connection); keen and energetic worker; highest references. 353/31, Office of this Paper.

SALESMAN—REPRESENTATIVE; 15 years' sound experience and connection in Yorks, Lancs, Lincs and Notts with Chemists, Stores, Hairdressers and Allied Trades; excellent sales records and references. 356/8, Office of this Paper.

YOUTH (18), Secondary Education, desires post in Wholesale Chemists' firm, any capacity, with prospects; moderate salary. B., 334 Grove Green Road, E.11.

WELL-EDUCATED Young Salesman (28) desires post as Representative with good house; salary and commission; excellent references; car. P.C.B. 62/3, Office of this Paper.

FOR SALE.

(Articles to the value of £5-£50.)

CASH REGISTER, National, for quick sale; has keys to 10s.; outside finish in mahogany grain; paper roll at side. Write only to R. White, 60 Dongola Road, Plaistow, E.

MISCELLANEOUS.

A FINE PHARMACY can now be fitted complete ready for opening from £95 upwards. Old-time shops modernised and brought up to date at lowest prices. Many recent testimonials. Designs, advice and prices free from PHILIP JOSEPHS & SONS, LTD., Pharmacy Fitters for 107 years, 90/92 St. John Street, Clerkenwell, London, E.C.

A TTRACTIVE BARGAINS in reconditioned Second-hand Chemist Fittings, various sizes and styles, sold singly or in sets. Visit our Showrooms or write your particulars. RUDDUCK & CO., 219/227 Old Street, London, E.C.1.

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CHEMISTS' FITTINGS.—We hold an immense stock of Drug Fittings, Dispensing Screens, Glass Fronted Counters, Perfumery Cases, Nests of Drawers, Wall Cases, Silent Salesmen, Upright and Flat Counter Cases, Plate-glass Counters, Cash Tills, Display Stands and Glass Shelves, etc., ready for immediate delivery at competitive prices. Write or call for List. F. MAUND & E. BERG (SHOWCASES), LTD., 175/9 and 336 Old Street, London, E.C.1.

CHEMISTS' Fittings, direct from manufacturer; soundly constructed in oak and mahogany; 8 ft. Drug Run, £18; 6 ft. Dispensing Screen, £14; 6 ft. Showcase Fronted Counter, £8 5s.; 6 ft. Wall Case, £11; 6 ft. Glass Counter, £8 15s.; Counter Case, 30 x 24 x 18, £2 5s., etc. Send now for photographs, or call and inspect. MYERS, Complete Chemist Fitters, 134a Kingsland Road, E.2, near Shoreditch Church. Bishopsgate 2524.

FOR DISPOSAL.—Small Plastic Mixing Machine, size of container 9 x 9 x 11½ in. 215/695, Office of this Paper.

MAHOGANY Fittings to be sold cheap.—12-ft. Drugfitting, 30 drawers; 10-ft. Wall Case; 10-ft. Glass-front Counter; Dispensing screen, 7 ft. 6 in. long; two 4-ft Nests Counter drawers; sketches by return; Fittings for any Pharmacy. George Cook, The Working Shopfitter, 27 Macclesfield Street, City Road, E.C.1. (Clerk. 5371.)

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SIFTER and Mixer, excellent condition. Particulars on application to 215/692, Office of this Paper.

SIX Pot Porcelain Ball Mill, also Hexagonal Wood Tumbling Barrel. 215/691, Office of this Paper.

WANTED.—Sifter and Mixer, must be in good condition, about 100-140 lbs. capacity. 215/696, Office of this Paper.

WANTED.—Starch Sifting and Tray Filling Machine. Lowest price and illustration to 215/697, Office of this Paper.

6 x 12 TRIPLE Granite Roller Mill, also Galvanised Steel Tank with Ball Valve. 215/693, Office of this Paper.

£?—COMPLETE CHEMIST FITTINGS at any price you wish to pay. We have erected in our showroom a Complete Chemist Shop with Metal Shop Front, Window Backs, Correct Window Lighting Signs and Modern Interior Fittings. Apply for Lists. D. MATTHEWS & SON, LTD., "The Liverpool Shop Fitters," 14 and 16 Manchester Street, Liverpool. Est. 1848.

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SECOND-HAND Eureka Tablet Machine; also 30-inch Colton Shape Sugar Coating Pan for pills or tablets. 215/700, Office of this Paper.

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On receipt of addressed Post Office Wrappers (not more than six at a time) stamped 1d. the Chemist and Druggist Supplement will be forwarded without cost.

LOOSE STAMPS WILL NOT BE ACCEPTED

If wrappers bear a halfpenny stamp only, postal delivery may be delayed.

